A historic moment. A new era.
This special edition of Saint Joseph’s University Magazine marks the historic acquisition of the University of the Sciences, celebrating the histories of both institutions and the possibilities ahead.

Cover: Jenna Hunt ’23. Learn about Hunt’s research on page 31.

Contents JUNE 2022

SAINT JOSEPH’S TODAY
by Diane Holliday
Though much has changed in the University’s 171-year history — campus expansions, new facilities, student growth, a historic merger — Saint Joseph’s student-centric educational mission has remained unwavering.

Features
14 DEDICATED TO DISCOVERY
by Jeff Marion ’04, ‘05 (MA)
From its earliest days, the Jesuit order has been populated with scientific thinkers who have helped shape our understanding of the world.

18 EXPANDING OUR PHILLY FOOTPRINT
by Andrew Westveer ’21 (MA)
Saint Joseph’s is expanding — and opening up a future of exciting possibilities for its students.

22 HISTORIES INTERTWINED
by Victor Filoromo
With over 370 years of combined academic success, growth and service to students, Saint Joseph’s University and the University of the Sciences have built incredible legacies — with so many stories yet to be told.

26 THE POWER OF PARTNERSHIP
by Emmalee Eckstein
With guidance from faculty mentors, students turn their ideas into high-impact research.

32 THE BUSINESS OF SCIENCE
by Jen A. Miller
When scientists have a business background, innovation flourishes and drives society forward.

3 FROM THE PRESIDENT
WELCOMING NEW TRUSTEES TO THE SAINT JOSEPH’S BOARD

36
As you read the pages of this special issue of Saint Joseph's University Magazine, it is apparent how truly unique and exceptional this moment is. When the University of the Sciences approached me about a potential agreement, the possibilities were immediately evident. Expansion into high-demand health and sciences fields aligned perfectly with our strategic plans. Saint Joseph’s will now steward a 200-year history of excellence and innovation in these fields, allowing for evolution and growth. We also have an alumni network expanded by the nearly 20,000 University of the Sciences graduates we have welcomed. At a time when higher education is all over the news, our headline is one of enduring relevance and agile adaptation.

On the cover of this issue, the word TODAY heralds a new era, one that is ripe with opportunities and avenues. The addition of the University of the Sciences’ professional programs and acclaimed faculty strengthen our educational mission, widen our scope of impact and attract a new pool of students who will be transformed as Hawks.

But for all that is new, additive, evolving and possible, there is an equal if not greater amount that is constant. Saint Joseph’s University will continue to do exactly what it has always done since 1851 — offer a Jesuit educational experience that touches every facet of our students’ lives and yields professionals and citizens prepared and passionate about building a better tomorrow. Our mission is more alive than ever and our academic excellence continues to rise.

Over the years, I have heard countless stories of lives changed by professors, friendships, scholarships, service trips, research experiences — you name it. I’ve cut ribbons on new ventures and spaces, toasted remarkable alumni, greeted noteworthy politicians and scholars, and yes, even shook hands with Pope Francis. As I, along with my colleagues, our students and our alumni, welcome the University of the Sciences community, I wish to pay homage to their rich history, brimming with stories, milestones and memories like these. I am grateful that our histories paved paths that brought us to this moment and look ahead with great excitement to our future.

Mark C. Reed, EdD
Create an institution of transformative knowledge: that’s what Felix Barbelin, S.J., set out to do when he founded Saint Joseph’s College in 1851. Though much has changed in the University’s 171-year history — campus expansions, new facilities, student growth, a historic merger — Saint Joseph’s student-centric educational mission has remained unwavering.

What started as a college of just 36 students has evolved into the ninth largest Jesuit university in the country, spreading across two locations and enrolling nearly 9,000 undergraduate and graduate students combined. At its core is the pursuit of lifelong learning, a commitment to critical thinking and a passion to employ education for the greater good. The University’s outcomes echo these values — Saint Joseph’s is among the top 2.5% of institutions for post-graduate and lifelong earnings, and impressive numbers of alumni go on to prestigious service and research programs.

“I believe we can thank our Jesuit tradition for our success,” says Cheryl A. McConnell, PhD, provost and senior vice president for academic affairs. “The skills we instill in our students — ethical decision making, contemplation in action, people with and for others, the ability to act and flourish in the face of uncertainty — are rooted in 500 years of history.”

Today, with its robust portfolio of health, science, business and education programs grounded in a liberal arts core, the University empowers its students to transform communities, build better businesses, educate future generations and make life-altering scientific discoveries. And with more programs, more research opportunities and more facilities than ever, Saint Joseph’s exemplifies its founder’s vision to transform the world through knowledge.

By Diane Holliday

MORE PROGRAMS, MORE LOCATIONS, MORE THAN EVER.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

11. The focus of Saint Joseph's education is the College of Arts and Sciences, which every undergraduate student — regardless of major — will experience through the general education program. Rigorous academic training and a curriculum rooted in the liberal arts means that students don’t just become experts in a field — they also gain the breadth and depth of knowledge to adapt and lead by example in an ever-changing world.

“We train students with a broad education that prepares them for a whole host of careers; the data shows people change their careers multiple times,” says Dean James Carter, PhD. “But then we prepare them with a specific set of skills that will enable them to go into the career they’ve chosen.”

Opportunities abound in the natural sciences: genomics and cancer biology; in the social sciences: economics and political sciences; and in the humanities: English and music — to name only a handful. And with ample research experiences, internships and co-ops, and service learning opportunities, students leave with the experience necessary to excel in whatever field they choose.

Criminal Justice (BS, MS)

With established industry connections, this program helps students understand the complex causes of crime and equips them with practical skills necessary to forge careers dedicated to helping others.

Environmental Science (BS)

Students develop skills in data collection and reduction, experimental design, scientific presentations and more to tackle our planet’s greatest environmental perils.

Brewing Science Certificate

Bringing together programs in fermentation and brewing sciences, this certificate equips graduates with the science and math skills needed for success in the competitive microbrewing arena.

Public Policy (BA)

Students not only learn how to address issues affecting the public through laws and regulations, but also gain an understanding of the entities that impact the policymaking process.

KEY PROGRAMS

Neuroscience (BS)

Majors study the structure and function of the nervous system across theoretical and clinical contexts within three tracks — molecular and medicinal, clinical health, and theoretical neuroscience.

Criminal Justice (BS, MS)

With established industry connections, this program helps students understand the complex causes of crime and equips them with practical skills necessary to forge careers dedicated to helping others.

Environmental Science (BS)

Students develop skills in data collection and reduction, experimental design, scientific presentations and more to tackle our planet’s greatest environmental perils.

Brewing Science Certificate

Bringing together programs in fermentation and brewing sciences, this certificate equips graduates with the science and math skills needed for success in the competitive microbrewing arena.

Public Policy (BA)

Students not only learn how to address issues affecting the public through laws and regulations, but also gain an understanding of the entities that impact the policymaking process.

C O L L E G E O F
Arts and Sciences

Readying Students to Make Their Mark on the World

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

11. The focus of Saint Joseph’s education is the College of Arts and Sciences, which every undergraduate student — regardless of major — will experience through the general education program. Rigorous academic training and a curriculum rooted in the liberal arts means that students don’t just become experts in a field — they also gain the breadth and depth of knowledge to adapt and lead by example in an ever-changing world.

“We train students with a broad education that prepares them for a whole host of careers; the data shows people change their careers multiple times,” says Dean James Carter, PhD. “But then we prepare them with a specific set of skills that will enable them to go into the career they’ve chosen.”

Opportunities abound in the natural sciences: genomics and cancer biology; in the social sciences: economics and political sciences; and in the humanities: English and music — to name only a handful. And with ample research experiences, internships and co-ops, and service learning opportunities, students leave with the experience necessary to excel in whatever field they choose.

Criminal Justice (BS, MS)

With established industry connections, this program helps students understand the complex causes of crime and equips them with practical skills necessary to forge careers dedicated to helping others.

Environmental Science (BS)

Students develop skills in data collection and reduction, experimental design, scientific presentations and more to tackle our planet’s greatest environmental perils.

Brewing Science Certificate

Bringing together programs in fermentation and brewing sciences, this certificate equips graduates with the science and math skills needed for success in the competitive microbrewing arena.

Public Policy (BA)

Students not only learn how to address issues affecting the public through laws and regulations, but also gain an understanding of the entities that impact the policymaking process.

KEY PROGRAMS

Neuroscience (BS)

Majors study the structure and function of the nervous system across theoretical and clinical contexts within three tracks — molecular and medicinal, clinical health, and theoretical neuroscience.

Criminal Justice (BS, MS)

With established industry connections, this program helps students understand the complex causes of crime and equips them with practical skills necessary to forge careers dedicated to helping others.

Environmental Science (BS)

Students develop skills in data collection and reduction, experimental design, scientific presentations and more to tackle our planet’s greatest environmental perils.

Brewing Science Certificate

Bringing together programs in fermentation and brewing sciences, this certificate equips graduates with the science and math skills needed for success in the competitive microbrewing arena.

Public Policy (BA)

Students not only learn how to address issues affecting the public through laws and regulations, but also gain an understanding of the entities that impact the policymaking process.
The Haub School prepares students for the future of business by teaching them the critical thinking and lifelong learning skills necessary to remain agile in the face of change. "The one thing that stays constant is the importance of a liberal arts foundation," says Dean Joseph A. DiAngelo, EdD '70. "Corporations hire our students because of their writing and critical thinking skills; they have a robust foundation in the business disciplines and a string moral compass."

Combined with a competitive cooperative education program, innovative degrees and connections to global companies, Haub is preparing its graduates for careers that don’t even exist yet, says DiAngelo. "We’ve always taught healthcare and pharmaceuticals, but now we’re not just talking about the marketing or branding — now we can get into the development of products," DiAngelo explains. "The merger also has implications for disciplines like data analytics and health informatics; it’s opening up a whole new horizon for our programs."

Saint Joseph’s-educated Dean JOSEPH A. DIANGELO, EDD ’70 has been at the helm of the Haub School of Business since 2000. Under his leadership, the school has doubled its enrollment over the last two decades, making Haub the largest Jesuit business school in the country with more than 2,600 undergraduates and 1,310 graduates and ranking the college among top business schools worldwide. For DiAngelo, the accolades ultimately boil down to student outcomes. "Our students are smart, they’re inquisitive, they’re hardworking. At the end of the day, it’s their success, the impact they make in their careers and their contributions to society — that’s what makes me proud," he says.

DiAngelo serves on the board of the Faith in the Future Foundation, with oversight of the high schools in the Archdiocese of Philadelphia. Previously, he was chair of the AACSB board of directors — the second-ever Jesuit dean in the role — and served as a board member on the Pennsylvania Intergovernmental Cooperation Authority. A professor of management and expert in human resource management, DiAngelo’s research has been published in numerous management and HR journals.

Haub’s renowned food marketing program prepares students to be leaders in the food and beverage sector, capitalizing on strong industry ties and faculty experts in the field. COMPLEMENTARY PROGRAMS: BREWING SCIENCES, COMMUNICATION STUDIES, ENGLISH

**Health Administration (BS, MBA)**

This graduate degree delivers the management and administrative skills necessary to succeed in the health system, from operations and organization development to health policy and status assessment. COMPLEMENTARY PROGRAMS: BIOLOGY, HEALTH INFORMATICS, PHARMACEUTICAL & HEALTHCARE MARKETING

**Business Intelligence and Analytics (BS, MS)**

Data technology transforms businesses and powers our world. Students in this program learn to harness data to help businesses make strategic decisions and advance critical decision-making. COMPLEMENTARY PROGRAMS: COMPUTER SCIENCE, MARKETING, MATHEMATICS

**Pharmaceutical & Healthcare Marketing (BS, MBA, MHA)**

Taught by faculty with industry experience, this program equips students to oversee efficient clinical research and manage complex healthcare costs that are challenging the industry. COMPLEMENTARY PROGRAMS: BIOLOGY, INTERNATIONAL BUSINESS, PHARMACEUTICAL SCIENCES

**Marketing**

The one thing that stays constant is the importance of a liberal arts foundation, says Dean Joseph A. DiAngelo, EdD ’70. “Corporations hire our students because of their writing and critical thinking skills; they have a robust foundation in the business disciplines and a string moral compass.” Combined with a competitive cooperative education program, innovative degrees and connections to global companies, Haub is preparing its graduates for careers that don’t even exist yet, says DiAngelo. “We’ve always taught healthcare and pharmaceuticals, but now we’re not just talking about the marketing or branding — now we can get into the development of products,” DiAngelo explains. “The merger also has implications for disciplines like data analytics and health informatics; it’s opening up a whole new horizon for our programs.”

The Haub School prepares students for the future of business by teaching them the critical thinking and lifelong learning skills necessary to remain agile in the face of change. “The one thing that stays constant is the importance of a liberal arts foundation,” says Dean Joseph A. DiAngelo, EdD ’70. “Corporations hire our students because of their writing and critical thinking skills; they have a robust foundation in the business disciplines and a string moral compass.” Combined with a competitive cooperative education program, innovative degrees and connections to global companies, Haub is preparing its graduates for careers that don’t even exist yet, says DiAngelo. “We’ve always taught healthcare and pharmaceuticals, but now we’re not just talking about the marketing or branding — now we can get into the development of products,” DiAngelo explains. “The merger also has implications for disciplines like data analytics and health informatics; it’s opening up a whole new horizon for our programs.”

Saint Joseph’s-educated Dean JOSEPH A. DIANGELO, EDD ’70 has been at the helm of the Haub School of Business since 2000. Under his leadership, the school has doubled its enrollment over the last two decades, making Haub the largest Jesuit business school in the country with more than 2,600 undergraduates and 1,310 graduates and ranking the college among top business schools worldwide. For DiAngelo, the accolades ultimately boil down to student outcomes. “Our students are smart, they’re inquisitive, they’re hardworking. At the end of the day, it’s their success, the impact they make in their careers and their contributions to society — that’s what makes me proud,” he says.

DiAngelo serves on the board of the Faith in the Future Foundation, with oversight of the high schools in the Archdiocese of Philadelphia. Previously, he was chair of the AACSB board of directors — the second-ever Jesuit dean in the role — and served as a board member on the Pennsylvania Intergovernmental Cooperation Authority. A professor of management and expert in human resource management, DiAngelo’s research has been published in numerous management and HR journals.

Haub’s renowned food marketing program prepares students to be leaders in the food and beverage sector, capitalizing on strong industry ties and faculty experts in the field. COMPLEMENTARY PROGRAMS: BREWING SCIENCES, COMMUNICATION STUDIES, ENGLISH

**Health Administration (BS, MBA)**

This graduate degree delivers the management and administrative skills necessary to succeed in the health system, from operations and organization development to health policy and status assessment. COMPLEMENTARY PROGRAMS: BIOLOGY, HEALTH INFORMATICS, PHARMACEUTICAL & HEALTHCARE MARKETING

**Business Intelligence and Analytics (BS, MS)**

Data technology transforms businesses and powers our world. Students in this program learn to harness data to help businesses make strategic decisions and advance critical decision-making. COMPLEMENTARY PROGRAMS: COMPUTER SCIENCE, MARKETING, MATHEMATICS

**Pharmaceutical & Healthcare Marketing (BS, MBA, MHA)**

Taught by faculty with industry experience, this program equips students to oversee efficient clinical research and manage complex healthcare costs that are challenging the industry. COMPLEMENTARY PROGRAMS: BIOLOGY, INTERNATIONAL BUSINESS, PHARMACEUTICAL SCIENCES

**Marketing**
Pharmacy (PharmD)
Housed in the Philadelphia College of Pharmacy, the doctoral program prepares students to become practice-ready pharmacists with a competency-driven curriculum and training in 400+ sites worldwide.

**COMPLEMENTARY PROGRAMS:** PHARMACEUTICAL & HEALTHCARE MARKETING MBA, BUSINESS ADMINISTRATION

**Occupational Therapy (MOT, DrOT)**
This program prepares students helping others engage in meaningful and goal-directed activities regardless of their disability or non-disability needs.

**COMPLEMENTARY PROGRAMS:** HEALTH SCIENCE, APPLIED BEHAVIORAL ANALYSIS, MBA

**Physical Therapy (DPT)**
Under the direction of faculty experts including board-certified specialists, students study evidence-based techniques to assess and treat the body, and work as part of an interprofessional healthcare team during clinical experiences.

**COMPLEMENTARY PROGRAMS:** HEALTHCARE MANAGEMENT, HEALTH SCIENCE, LEADERSHIP CERTIFICATE

**Physician Assistant Studies (MSPAS)**
Students take courses in state-of-the-art learning facilities and complete nine clinical rotations, most of which are offered in the Philadelphia region.

**COMPLEMENTARY PROGRAMS:** HEALTHCARE MANAGEMENT, BUSINESS ADMINISTRATION, LEADERSHIP CERTIFICATE

**Exercise Physiology (BS)**
Through a science-based curriculum and hands-on practice, students learn the science of movement and the multidimensional nature of wellness.

**COMPLEMENTARY PROGRAMS:** BIOLGY, HEALTH SCIENCE, NUTRITION, OCCUPATIONAL AND PHYSICAL THERAPY

---

**Dean Spotlight**

**SINCLAIR SMITH, ScD**, brings more than 25 years of experience in higher education leadership, teaching and research to his role as dean of SJU’s School of Health Professions. Most recently, he was dean of the University of the Sciences’ Samson College of Health Sciences.

With a doctor of science in applied anatomy and physiology, Smith has published more than 100 peer-reviewed articles, presentations and book chapters, and mentored over 50 graduate student research projects.

"Mentoring the next generation of healthcare professionals has been a highlight of my career," he says. "I am so impressed by their adaptability and drive to improve society."

Smith and Associate Dean Carol Matz, PhD, have also overseen the growth of an on-campus, pro-bono clinic providing free physical and occupational therapy services to the West Philadelphia community.

"The clinic allows students to work directly with patients, grow their skill sets and serve the community," Smith says. "We hope to incorporate pharmacy, physician assistant studies and behavioral health in the future."
The School of Education and Human Development is where students who are committed to making a positive impact in their communities thrive as caring educators and clinicians. Featuring programs in educational leadership, teacher and special education, and counseling and human development, the school prepares students to be thought leaders through research, service and professional training opportunities.

In a commitment to Jesuit ideals and core principles, students are introduced to social justice content through innovative school-wide themed syllabi, with topics ranging from “Lifting the Mask of Institutional Bias: From Discussion to Disruption,” to “Social and Emotional Wellness: Considering Access and Equity.” Students also complete student-teaching and clinical training experiences, while benefiting from interdisciplinary opportunities within the school and across the University.

For students in the School of Health Professions’ occupational therapy program, there will be opportunities for collaboration within the School of Education and Human Development’s Kinney Center for Autism Education and Support. The School is also collaborating with the College of Arts and Sciences to establish programs in art, history, foreign language and STEM education, as well as with the Haub School to offer continuing professional development programs in art, history, and equity.

The School is home to the Kinney Center for Autism Education and Support, a community-facing organization that trains the next generation of autism professionals while supporting individuals and families affected by autism spectrum disorder.

Featuring the Alliance for Catholic Education, a two-year service program that provides recent graduates the opportunity to earn a master’s degree while serving as full-time teachers and administrators in under-resourced Catholic schools.

A funnel into some of U.S. News & World Report’s 100 Best Jobs of 2022, including high school teacher (No. 46), audiologist (No. 79), school counselor (No. 87) and elementary school teacher (No. 94).

Top employers of School of Education and Human Development graduates include Children’s Hospital of Philadelphia, School District of Philadelphia and U.S. Department of Veteran Affairs.

Dean Spotlight

JOSHUA POWER ’05, ’16 (EDD), was named dean of the School of Education and Human Development in April. He most recently served as Saint Joseph’s executive director of graduate and extended studies, having first joined the University in 2005 as an AmeriCorps VISTA Fellow with the Faith-Justice Institute.

Power played an integral role co-founding the University’s Alliance for Catholic Education, an innovative two-year service program that provides recent college graduates the opportunity to earn a master’s degree while serving as full-time teachers and administrators in under-resourced Catholic schools.

Power received both his bachelor’s and EdD from Saint Joseph’s, earning the Rashford Award for Outstanding Dissertation for his work exploring the perceived impact of community living and spirituality on first-year teachers. He earned his master’s degree in education, culture and society from the University of Pennsylvania.

KEY PROGRAMS

Autism Behavioral Studies (BS)
This program is designed to meet the growing need for qualified, professionally trained clinicians, educators and researchers to support individuals with autism.

Complementary Programs: Special Education Studies, Health Studies, Childhood Studies

Interdisciplinary Doctor of Educational Leadership (EdD)
The program prepares transformational scholar-practitioners across K-12, higher education and social sector fields who are committed to equity-oriented change.

Complementary Programs: Educational Leadership and Administration, Organizational Development and Leadership

Clinical Mental Health Counseling (MS)
This graduate program trains students to work as licensed counselors serving clients, individuals and families who struggle with addiction, self harm, thoughts of suicide and mental health disorders.

Complementary Programs: Certificates in Applied Behavioral Analysis or Addiction Counseling

School Counseling (MS)
Within PK-12 schools, trained school counselors provide critical social-emotional, academic, personal and career support that ensures optimal learning outcomes for students.

Complementary Programs: Psychology, Education Studies, Applied Behavior Analysis

SCHOOL OF Education and Human Development
Cultivating Change Agents to Shape Future Generations

FAST FACTS

- Top employers of School of Education and Human Development graduates include Children’s Hospital of Philadelphia, School District of Philadelphia and U.S. Department of Veteran Affairs.
- A funnel into some of U.S. News & World Report’s 100 Best Jobs of 2022, including high school teacher (No. 46), audiologist (No. 79), school counselor (No. 87) and elementary school teacher (No. 94).
- Home to the Kinney Center for Autism Education and Support, a community-facing organization that trains the next generation of autism professionals while supporting individuals and families affected by autism spectrum disorder.
- Featuring the Alliance for Catholic Education, a two-year service program that provides recent graduates the opportunity to earn a master’s degree while serving as full-time teachers and administrators in under-resourced Catholic schools.

"A big part of acting with and for others is supporting our local community," says Power. "I look forward to not only building upon our existing partnerships, but also forging new ones."

"A big part of acting with and for others is supporting our local community," says Power. "I look forward to not only building upon our existing partnerships, but also forging new ones."

"A big part of acting with and for others is supporting our local community," says Power. "I look forward to not only building upon our existing partnerships, but also forging new ones."
Dedicated to DISCOVERY

A Brief History of Jesuits in the Sciences

By Jeff Martin ’04, ’05 (MA)

Throughout its history, the Jesuit order has been populated with scientific thinkers who have helped shape our understanding of the world.

When students enroll at Saint Joseph’s University, they become members of a nearly 500-year-old tradition of Jesuit education. This education teaches them to direct their lives in service to others, no matter the field they choose. In essence, students who are Jesuit educated study the world around them and find ways to make it better.

Similarly, those who study science do so because they want to discover new ways to improve the world around them. And the parallel is no coincidence: From the earliest days of the order through the modern era, Jesuits have made contributions to scientific conversations and discovery. For centuries, at important times when science and faith have mixed, a Jesuit has often been at the center.

“Ignatian spirituality calls for us to find God in all things, and when we say ‘all,’ we don’t limit ourselves to the sacred,” says Daniel R.J. Joyce, S.J. ’98, vice president for mission and ministry at Saint Joseph’s. “For the early Jesuits and for all those who followed in their footsteps, science gave insight into knowing how the universe worked, which in turn gave us greater understanding of God’s creation.”

“Science gave insight into knowing how the universe worked, which in turn gave us greater understanding of God’s creation.”

Daniel R.J. Joyce, S.J. ’98

In the annotated autobiography of Jesuit founder St. Ignatius of Loyola, editor Joseph Tylenda, S.J., notes that “the greatest consolation [Ignatius] received … was from gazing at the sky and stars, and this he often did and for quite a long time. The result of all this was that he felt within himself a strong impulse to serve the Lord.”

One of the earliest official interactions between Jesuits and astronomy came in 1582, when mathematician Christopher Clavius, S.J., used calculations by scientists — including Copernicus and Erasmus Reinhold — in his creation of the Gregorian calendar, which accounted more closely for the length of the Earth’s trip around the sun and changed the timing of leap days to correct the 365-day calendar. Fr. Clavius, who taught at the Roman College, was in frequent correspondence with the astronomer Galileo Galilei, who often consulted with the Jesuit priest on mathematical issues of the day. Robert Bellarmine, S.J. — after whom the University’s Bellarmine Hall is named — would challenge Galileo to prove some of his findings, sparking a struggle between Galileo and Pope Urban VIII that brought the scientist before the Roman Inquisition more than once. Meanwhile, the Jesuits continued to make important contributions to astronomy. Giovanni Battista Riccioli, S.J., conducted some of the most thorough research of the late 17th century to demonstrate the Earth’s rotation around its axis — research that wasn’t fully realized for another 200 years. Roger Boscovich, S.J., who studied the travel of comets and the transit of Venus across the sun, helped prove the heliocentric model that Galileo had promoted.

The modern Vatican maintains its own observatory, led by Bro. Guy Consolmagno, S.J., who was awarded an honorary degree from Saint Joseph’s this year. The observatory is also staffed by Jesuits who are experts in asteroids, extrasolar planets, stellar evolution and more.

Did you know?

11 asteroids have been named after Jesuits

JUNE 2022
A Growing Order... AND BURGEONING PHARMACEUTICAL TRADE

From the very beginning, Jesuits were an order of missionaries, sent out to work in the larger world. Just a year after St. Ignatius founded the order, one of his early companions, St. Francis Xavier, traveled to modern-day India and, within a decade, the first Jesuits arrived in South America. By 1568, the first Jesuit college outside of Europe was established: San Pablo de Lima in Peru. As they traveled the globe, though, the Jesuits often found themselves in poor communities located far from medical aid. They learned many remedies using local plants and herbs, and when they eventually established more colleges, they would build pharmacies to provide care to both the priests living there and the local population. Inspired by their tenets of service and justice, the Jesuits began to share the remedies that they had learned whenever they established a new mission. Soon, San Pablo became internationally known for its pharmacy around the world. The Jesuit influence is evident even as far as the Philippines, where Jesuits including Paul Klein, S.J., and Georg Joseph Kamel, S.J., kept manuals for making medicines that included ingredients from the Americas, including maize, pineapple and cacao. Peru that an indigenous remedy for malaria using cinchona tree bark — which contains quinine, an effective antimalarial — was learned and spread by the order and is today popularly known as “Jesuit’s bark.” Because of their worldwide network and regular travel, the Jesuits became one of the only organizations that could facilitate pharmaceutical commerce. They could source ingredients, share knowledge of how to concoct remedies and, most importantly, ship medicines to other Jesuit outposts. Their exchange would eventually spread back to Europe. The Roman College established its pharmacy in 1627, sprawling across five rooms and including medicines that were regularly sent to and from other Jesuit pharmacies around the world. The Jesuit influence is evident even as far as the Philippines, where Jesuits including Paul Klein, S.J., and Georg Joseph Kamel, S.J., kept manuals for making medicines that included ingredients from the Americas, including maize, pineapple and cacao.

THE JESUIT, SCIENTIST POPE

Whatever icy relationship is between faith and science writ large has thawed considerably over the years, but the melt accelerated when an Argentinian Jesuit priest named Jorge Mario Bergoglio became Pope Francis in 2013. Prior to entering the seminary to train as a priest, Pope Francis studied chemistry at a technical school in Buenos Aires and worked as a technician in a food science laboratory. And though he didn’t pursue an advanced degree in science, Pope Francis continues to be an advocate for people of faith to trust in science. His Laudato Si encyclical is a call to all people to acknowledge the human contribution to climate change and work to mitigate the damage it causes to Earth. Pope Francis also seems to be willing to heal past divisions between the Church and science. In Laudato Si, Francis became the fourth pope to write positively about Pierre Teilhard de Chardin, S.J., a French paleontologist and contemporary of Charles Darwin whose discoveries in evolution and theory of an “Omega point” — where everything in the universe spirals to a final unified point — made him an outcast in the Church. Pope Francis’ call to find harmony between science and religion comes at a time when the two are too often portrayed as enemies, according to John Bovardman, S.J., PhD, an evolutionary biologist and assistant professor of biology at Saint Joseph’s. “Teach a class called God in Evolution, in which we imagine what hand God may have had in guiding, managing or intervening in evolution,” Bovardman shares. “A student once asked me if I believed in evolution, he thought that maybe I was teaching the material without believing in it. That’s because young people today see a culture that feeds them cliches that faith is necessarily anti science.” But for Bovardman, who studied biology and earned a PhD before joining the order, the long history of the Jesuits in the sciences is just a base on which modern priests, brothers and scholars can build. Indeed, he says, the Jesuit way of teaching is closely related to how scientists approach the world. “Ignatian pedagogy has an empirical quality to it,” he says. “It’s about listening to and observing the world around us, making an assessment using reason and our educated backgrounds, and doing something about it to solve the issue, before cycling back to observation. In the natural sciences it’s similar — we use our senses to detect the world around us, come up with a hypothesis to test, act and make observations on what changed. The approaches are so similar, it’s no wonder there are so many scientists throughout Jesuit history.”

Interested in Learning More?

A – Barbelin Hall
Built in 1927, Barbelin was named after Saint Joseph's founder Felix J. Barbelin, S.J. The beloved building, with its 165-foot bell tower, houses the College of Arts and Sciences, Office of Graduate and Extended Studies, and many classrooms and academic majors.

B – Barnes Arboretum
Featuring more than 2,500 types of woody and herbaceous plants, the 12-acre arboretum — operated by Saint Joseph’s as part of an educational partnership with the Barnes Foundation — is the ideal site for the Barnes horticultural certificate program and Institute for Environmental Stewardship, supporting teaching, research and scholarly work.

C – Connelly Hall/Kinney Center for Autism Education and Support
In addition to science labs and classrooms, Connelly Hall houses the Kinney Center, a nationally prominent center dedicated to autism research, supporting students and families affected by ASD, and educating students who will play a critical role in those individuals’ futures. It also features a hands-on lab where autistic students and community members can hone their vocational skills.

D – Michael J. Hagan ’85 Arena
Stomping grounds for the men’s and women’s NCAA Division I basketball teams, Hagan features a 4,500-seat arena, practice courts, a workout facility, state-of-the-art locker rooms, Hall of Fame room and an eight-lane pool.

E – Maguire Wollensk Welcome Center
The home base of the Office of Undergraduate Admission, this grand building is the former residence of archbishops and cardinals of the Archdiocese of Philadelphia. It counts among its distinguished visitors three popes, three presidents and first ladies, senators, governors and ambassadors.

F – Mandeville Hall
Residing in Mandeville is the Erivan K. Haub School of Business, one of the world’s top-ranked business schools, featuring the Academy of Food Marketing, Cooperative Education Program, Haub Innovation Center and Wall Street Trading Room — an integrated learning environment incorporating analytical tools, investment data and trading simulations.

G – Merion Hall
Merion Hall is home to the School of Education and Human Development and features classrooms, study spaces, an art gallery and the Writing Center. A tech-forward, multi-use esports lab opened in the space in 2020, boasting academic programming, an esports club and recreational space.

H – Science Center
Equipped with a tissues-culture lab (used to grow animal cells) and a biodiversity lab (hosting rare and exotic species), the Science Center also features a greenhouse and extensive green roof system. Part of a stormwater management program, it’s one of the only research facilities of its kind in the region, used to study the efficacy of drainage systems and plant types.

The Saint Joseph’s student experience isn’t just expanding, it’s evolving.
With the addition of cutting-edge research facilities, residence halls, historic buildings and gathering spaces, the University offers a robust living-learning experience, spanning 161 acres and three zip codes.

Hawk Hill Campus
A – Barbelin Hall
Built in 1927, Barbelin was named after Saint Joseph’s founder Felix J. Barbelin, S.J. The beloved building, with its 165-foot bell tower, houses the College of Arts and Sciences, Office of Graduate and Extended Studies, and many classrooms and academic majors.

B – Barnes Arboretum
Featuring more than 2,500 types of woody and herbaceous plants, the 12-acre arboretum — operated by Saint Joseph’s as part of an educational partnership with the Barnes Foundation — is the ideal site for the Barnes horticultural certificate program and Institute for Environmental Stewardship, supporting teaching, research and scholarly work.

C – Connelly Hall/Kinney Center for Autism Education and Support
In addition to science labs and classrooms, Connelly Hall houses the Kinney Center, a nationally prominent center dedicated to autism research, supporting students and families affected by ASD, and educating students who will play a critical role in those individuals’ futures. It also features a hands-on lab where autistic students and community members can hone their vocational skills.

D – Michael J. Hagan ’85 Arena
Stomping grounds for the men’s and women’s NCAA Division I basketball teams, Hagan features a 4,500-seat arena, practice courts, a workout facility, state-of-the-art locker rooms, Hall of Fame room and an eight-lane pool.

E – Maguire Wollensk Welcome Center
The home base of the Office of Undergraduate Admission, this grand building is the former residence of archbishops and cardinals of the Archdiocese of Philadelphia. It counts among its distinguished visitors three popes, three presidents and first ladies, senators, governors and ambassadors.

F – Mandeville Hall
Residing in Mandeville is the Erivan K. Haub School of Business, one of the world’s top-ranked business schools, featuring the Academy of Food Marketing, Cooperative Education Program, Haub Innovation Center and Wall Street Trading Room — an integrated learning environment incorporating analytical tools, investment data and trading simulations.

G – Merion Hall
Merion Hall is home to the School of Education and Human Development and features classrooms, study spaces, an art gallery and the Writing Center. A tech-forward, multi-use esports lab opened in the space in 2020, boasting academic programming, an esports club and recreational space.

H – Science Center
Equipped with a tissues-culture lab (used to grow animal cells) and a biodiversity lab (hosting rare and exotic species), the Science Center also features a greenhouse and extensive green roof system. Part of a stormwater management program, it’s one of the only research facilities of its kind in the region, used to study the efficacy of drainage systems and plant types.

Expanding Our Philly Footprint
FROM HAWK HILL TO UNIVERSITY CITY
By Andrew Westveer ’21 (M.A)
University City Campus

A – Griffith Hall
The oldest building on the University City campus is the location of the Industrial Pharmacy Laboratory, a full-scale, GLP-compliant pharmaceutical research facility offering complete drug delivery research services; the West Center for Computational Research; and chemistry, biochemistry and pharmacy-related programs.

B – Integrated Professional Education Complex
Featuring innovative learning spaces, simulation labs and the physician assistant studies program, this steel superstructure made from recycled metal has a green roof with 20,000 square feet of vegetation, earning it three Green Globes from the Green Building Initiative.

C – Joseph W. Englund Library
The library, dedicated in 1973, contains one of the nation’s most complete collections of pharmaceutical literature, including many rare volumes on the history of pharmacy and medicine dating to the Middle Ages.

D – Living & Learning Commons (LLC)
In addition to state-of-the-art classrooms and living space, the LLC’s courtyard is flanked with bioretention planters that clean pollution from surface runoff, allow groundwater tables to recharge, reduce the burden on the city’s sewer system and create a habitat for pollinators.

E – Marvin Samson Center for the History of Pharmacy
Pharmaceutical history is on display with an original collection of over 8,000 pharmaceutical and medical artifacts dating back to the 1600s, including ceramic apothecary jars, pharmacy show globes, mortars and pestles, molds, and balances.

F – McNeil Science and Technology Center (STC)
Named for Robert L. McNeil Jr. ’38, who invented Tylenol, and his grandfather Robert McNeil (Class of 1876), founder of McNeil Laboratories Inc., the STC includes nuclear magnetic resonance suites, research and teaching laboratories; a 20-seat bioinformatics lab; and two Beowulf supercomputers, which are part of the Cephalon bioinformatics suite.

G – Pharmacology/Toxicology Center
The pharmacology labs located in the center offer state-of-the-art equipment for research, including real-time polymerase chain reaction (PCR) for nucleic acid amplification and quantification. Students engage in research and classroom learning in the center’s compounding, tissue culture and pharmacology laboratories.

H – Athletic Recreation Center (ARC)
The 78,000-square-foot ARC provides recreational facilities for exercise and sports practice as well as classrooms and space for student organizations. In addition, the ARC offers programs that encompass stress management, leadership and teamwork development, civil engagement, intramural and club sports, and group fitness.

Saint Joseph’s has officially launched a virtual tour of the Hawk Hill and University City campuses. Visit sju.edu/VirtualTour to check it out.
With over 370 years of combined academic success, growth and service to students, Saint Joseph's University and the University of the Sciences have built incredible legacies, with so many stories yet to be told. As we welcome this new era of Saint Joseph's, we look back on the events and people who paved the way for the next generation of leaders.

One University, Endless Possibilities

1821
A group of 68 apothecaries meet at Carpenters' Hall in Philadelphia to "advance the character and forward the interest of the profession," establishing the Philadelphia College of Apothecaries.

1822
Philadelphia College of Apothecaries is incorporated as the Philadelphia College of Pharmacy. It is the first college of pharmacy in North America.

1828
The Philadelphia College of Pharmacy and Science relocates to its new (and current) home, 48th St. and Woodland Avenue in West Philadelphia.

1829
The generosity of E. F. Lilly (Class of 1907) helps ensure the college's survival during the Great Depression. Future success is secured when the Lilly estate provides the largest gift in the college's history ($22.3 million, which has a current market value of $36.6 million).

1866
Susan Hayhurst becomes the first woman to graduate from the Philadelphia College of Pharmacy. She is awarded a graduate degree in pharmacy.

1883
Matthew Fortier, S.J., organizes an aggressive $1 million campaign to expand Saint Joseph's College. The college purchases 23 acres of land on the western edge of Philadelphia.

1920
Saint Joseph's College opens its doors on Sept. 15, 1851. Thirty-six young men are assigned to classes in a building adjacent to Old St. Joseph's Church in Philadelphia following High Mass.

1921
With a full block purchased on Girard Avenue between 17th and 18th Streets in Philadelphia, Saint Joseph's College moves to a new site. Two years later, Burchard Villiger, S.J., becomes president.

1922
Over the next decade and a half, numerous buildings are added to campus, including the Alumni Memorial Fieldhouse (1949, now Hagan Arena), Bellarmine Hall (1960), Campion Student Center (1961), Drexel Library (1963) and the Villiger classroom building (1964, now Villiger classroom building).

1925
Under the direction of Clarence E. Shaffrey, S.J., physics and chair of the biology department from 1925-47, Saint Joseph's pre-medical program becomes one of the best in the Philadelphia region.

1949
Jim Brennan '58 creates and debuts the Hawk mascot using a $120 student government grant. Six years later, "The Hawk Will Never Die" originates as a meme during a nail-biting basketball game against Villanova in which Wildcat fans begin to chant "The Hawk is dead."

1956
Executive Director James J. O'Connor founds the nation's first Academy of Food Marketing at Saint Joseph's. Today, the academy and its student government grant. Six years later, "The Hawk Will Never Die" originates as a meme during a nail-biting basketball game against Villanova in which Wildcat fans begin to chant "The Hawk is dead."

1967
The Doctor of Pharmacy program, one of the earliest such programs on the East Coast, is introduced.

1970
Saint Joseph's College opens its doors on Sept. 15, 1851. Thirty-six young men are assigned to classes in a building adjacent to Old St. Joseph's Church in Philadelphia following High Mass.

1851
By Victor Filoromo
1983
With a lead gift of $2 million from the Pew Charitable Trusts, nearly $6 million is raised toward the construction of the new Pharmacology/Toxicology Center.

1992
Levadd Abramson, a benefactor and board of trustee member, participates in the dedication of the new building.

1995
The college's museum is officially named the Marvin Samson Center for the History of Pharmacy in honor of the vice chairman of the board of trustees and a major benefactor for the institution.

1998
The college's status officially changes to that of a university, with the designation of the University of the Sciences in Philadelphia.

2004
The men's basketball team goes undefeated in the regular season (27-0) in its 2003-2004 campaign, advancing to the NCAA's Elite Eight.

2006
The McNeil Science and Technology Center (STC) is dedicated to Robert J. McNeil Jr., former University professor and CEO of McNeil Laboratories.

2010
Ground is broken on the John R. Post '60 Academic Center and the John and Maryanne Hennings Post Learning Commons. The project brings new, collaborative learning environments, with a three-story addition to the Drexel Library.

2012
Helen Giles-Gee, PhD, is named the first Black and first female president of USciences. Giles-Gee makes significant upgrades to operations while establishing new accredited academic programs.

2014
The Integrated Professional Education Complex (IPEX) opens. The 57,000-square-foot building showcases an interprofessional education model, allowing students to experience mock exam rooms, simulation labs, and clinical spaces.

2019
With the completion of the Living and Learning Commons, the University expands its footprint and provides new state-of-the-art living facilities to residential students.

2017
In July, the University announces the receipt of a $40 million gift from James J. Maguire '58 and his wife, Frances, the single largest gift in the University's history.

2018
The Barnes Foundation and Saint Joseph's embark on a long-term partnership, expanding opportunities for both students and the surrounding community to engage in the horticulture education program and fine arts programming. This includes operation and management of the 12-acre Barnes Arborum at Saint Joseph's and reimagined Frances M. Maguire Art Museum.

2019
The University opens the School of Health Studies and Education, bringing together more than 40 programs in the in-demand areas of health and education. Today, the school has expanded into two entities: the School of Health Professions and the School of Education and Human Development.

JUNE 1, 2022
The merger with USciences is complete. Today, the combined institution features more than 10,000 students, faculty, staff and alumni.
Saint Joseph’s students are driving their own research. They seek out professors to partner with on critical issues that they are passionate about, bringing fresh perspectives and ideas to the table. They gain independence and confidence as they try new approaches, navigating the ups and downs of the research process and, ultimately, coming into their own as scientists, analysts and changemakers.

The research taking place on our campuses knows no boundaries. Students and their faculty research advisors are getting to the root cause of degenerative neurological diseases, using AI to solve issues within our global supply chain, helping probated students overcome systemic oppression, and improving our understanding of synthetic toxins and how they affect brain activity for forensic screenings.

This is how students learn at Saint Joseph’s — working hands-on with guidance from faculty, they go beyond the classroom to turn their ideas into high-impact research that addresses critical challenges of our world.

STUDENT-FACULTY RESEARCH COLLABORATIONS WITH BIG IMPACT

STEVEN JOSEPH’S UNIVERSITY MAGAZINE

26 JUNE 2023

Having worked together on multiple projects, Garrett Walker ’23 and Jason Wallach, PhD, are currently synthesizing two different PCP-type derivatives to better detect recreational drugs that are being bought and sold as “legal highs.”

“Legal highs” are chemical compounds synthesized in labs that stimulate or depress the central nervous system in a way that mimics the psychoactive effects of illicit drugs, like cocaine or PCP. Recreational chemists tinker with the structure of these compounds so that they will intentionally fall outside international drug controls — at least when they first emerge — but they remain dangerous to consumers, just like the illegal substances they imitate.

“Once we’ve successfully synthesized the derivatives, we’ll have the ability to test how these compounds bind to certain receptors in the brain,” explains Walker. “Ultimately, this research will give us a better picture of how these drugs actually function and how changing the structure of the drug impacts its effect.”

Synthesizing these compounds makes it possible for Wallach and Walker to gather analytical data that can be used to detect these drugs in potential forensic or medical research.

■ ON WORKING TOGETHER

Walker has grown exponentially since joining Wallach’s lab — he went from being a first-year student who needed a lot of oversight to someone who checks in with his mentor occasionally to make sure he’s on the right track.

“I feel much more like a scientist,” says Walker. “I never thought I would be this independent in the lab.”

Wallach, too, has found growth in his relationship with Walker.

“Garrett is very passionate. I want that in my lab, it’s infectious. Even for me,” says Wallach. “It’s so valuable to have someone I can leave in charge of my lab; while I’m teaching or working on grant research, I know he’s there taking care of everything and diving into niche subjects that I’ve always wanted to pursue but have never had the time.”

■ ON RECOGNIZING THE POSSIBILITIES

“This work I’m doing with Dr. Wallach has completely changed the way I think about how science actually gets done. I used to think only the smartest people were able to work as scientists and that’s just not true,” says Walker. “It takes some time and effort to learn the language and understand the systems, but just being there and being interested — that’s the main thing. And with the right sense of curiosity and a willingness to work hard, you can really understand it.”

“It’s true that people feel intimidated by science and the research we do,” agrees Wallach. “But there is a lot of grit and passion that goes into excelling in this field. It takes effort, sure. But with the right passion and the right dedication, anyone can become a valuable researcher and scientist.”

Strengthening Detection of Recreational Toxins

Jason Wallach, PhD, assistant professor of pharmaceutical sciences
Garrett Walker ’23, pharmacology and toxicology major

By Emmalee Eckstein

PARTNERSHIP POWER

The partnership of Wallach, left, and Walker, right, examining slides in the lab.
Using AI to Streamline Our World

Charity Nadeau '20, '22 (MS) and Jeannine Shantz '11 (MS), '22 (MS), business intelligence assistant professor of decisions and system sciences, director of the Flash Innovation Center

The team is also working on a handbook chapter on utilizing cyber-physical systems in business contexts. For example, imagine a mortgage company that can use artificial intelligence to decide how large of a loan to award a person.

"Technically speaking, it’s a very complicated process for a machine to understand all your information and assign value to it. Errors can happen quite easily," says Balducicini. "So this handbook chapter will give companies the answers they need to communicate their process to consumers."

ON WORKING TOGETHER

"Dr. B. really trusts us and encourages us to dive in," says Nadeau. "Not every research role I’ve taken on has allowed me to be so independent. Jeannine and I really have to figure things out on our own, which has made a big difference in how I approach my professional work. I’m much more confident."

"When I started working with Dr. B., my entire view expanded," says Shantz, the director of research, evaluation and assessment at Drexel University’s Close School of Entrepreneurship. "I’m working on projects that are so far beyond the scope of what I started out thinking this degree program was about. It doesn’t seem to matter what academic track you’re on, he’ll find a way for you to contribute in a meaningful way."

ON ACCEPTING THE UNKNOWN

"I genuinely did not think that this is the type of research I would ever do," admits Nadeau, who graduated with a minor in finance and is working on her master’s in business intelligence.

"I’ve always been more geared toward data visualization and analytics. But I’ve really enjoyed the work we do."

Shantz has been impressed by the level of respect she has received from industry leaders during her work with Balducicini.

"We’re sitting down with the CTO at Intel and a lab director at NSTL," says Shantz. "They’re really open to our thoughts and ideas. They’ve been so gracious and attentive when we’re bringing research to the table. It’s been very affirming."

Disrupting the School-to-Prison Pipeline

Suniti Sharma, PhD, professor and chair of teacher education

Jaulie Cantave ‘22, secondary education and English major

Cantave is tracking how an increased level of literary enrichment supports these students’ current school experiences and enables their transition back to a more traditional academic environment.

Cantave is also monitoring these young men and discovering what tactics are most effective in forging deeper connections between educators and students who have been labeled as at-risk.

"Jaulie’s research will be used by future teachers in their classroom preparation — her findings will connect them with the cultural knowledge, testimonial and actual experiences of students labeled as at-risk," explains Sharma. "The goal is to generate knowledge useful to teachers who are teaching cross-culturally, making equity a priority and inclusion the starting point of teaching and learning."

(Continued on next page)
For Sharma, research and teaching have a symbiotic relationship. “In Indian culture, the ‘guru-shishya parampara’ (translates into ‘the teacher-student tradition’ and is key to students’ and teachers’ professional and spiritual development,” says Sharma. “It affects every aspect of life including teaching and learning. So to have the opportunity to work with students while immersing ourselves in a research project is its own reward.”

Cantave, who is in the process of becoming a general education teacher herself, has been able to dive more deeply into her values as an educator under Sharma’s wing. “It isn’t always enough to be a good person,” says Cantave. “That isn’t what will make you a good teacher. You need to use research to stay active and up to date. That’s what shows you care.”

**ON WORKING TOGETHER**

For Sharma, research and teaching have a symbiotic relationship. “In Indian culture, the ‘guru-shishya parampara’ (translates into ‘the teacher-student tradition’ and is key to students’ and teachers’ professional and spiritual development,” says Sharma. “It affects every aspect of life including teaching and learning. So to have the opportunity to work with students while immersing ourselves in a research project is its own reward.”

Cantave, who is in the process of becoming a general education teacher herself, has been able to dive more deeply into her values as an educator under Sharma’s wing. “It isn’t always enough to be a good person,” says Cantave. “That isn’t what will make you a good teacher. You need to use research to stay active and up to date. That’s what shows you care.”

**ON OVERCOMING CHALLENGES**

“This work is so humbling,” says Cantave. “I am a Black, gay person from Philadelphia, so understanding the prison industrial complex is important to my personal life as well as my professional one. My students are crazy intelligent and very capable, but undervaluing the effects of systemic oppression can feel impossible.”

Despite the enormity of the task at hand, Sharma remains impressed by her student’s determination. “Jadie has been able to go beyond her own struggle with the subject to really connect with students at The Academy,” says Sharma. “She continues to integrate the knowledge generated from her research into what she’s teaching.”

Cantave knows that staying current and available are critical to her success. “Kids, especially kids in Philadelphia, need teachers who are hyper aware of the society in which they live,” Cantave says. “It all impacts the classroom and how one kids will be able to learn and grow.”

**ON ACCEPTING THE UNKNOWN**

“Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“For Sharma, research and teaching have a symbiotic relationship. “In Indian culture, the ‘guru-shishya parampara’ (translates into ‘the teacher-student tradition’ and is key to students’ and teachers’ professional and spiritual development,” says Sharma. “It affects every aspect of life including teaching and learning. So to have the opportunity to work with students while immersing ourselves in a research project is its own reward.”

Cantave, who is in the process of becoming a general education teacher herself, has been able to dive more deeply into her values as an educator under Sharma’s wing. “It isn’t always enough to be a good person,” says Cantave. “That isn’t what will make you a good teacher. You need to use research to stay active and up to date. That’s what shows you care.”

**ON OVERCOMING CHALLENGES**

“This work is so humbling,” says Cantave. “I am a Black, gay person from Philadelphia, so understanding the prison industrial complex is important to my personal life as well as my professional one. My students are crazy intelligent and very capable, but undervaluing the effects of systemic oppression can feel impossible.”

Despite the enormity of the task at hand, Sharma remains impressed by her student’s determination. “Jadie has been able to go beyond her own struggle with the subject to really connect with students at The Academy,” says Sharma. “She continues to integrate the knowledge generated from her research into what she’s teaching.”

Cantave knows that staying current and available are critical to her success. “Kids, especially kids in Philadelphia, need teachers who are hyper aware of the society in which they live,” Cantave says. “It all impacts the classroom and how one kids will be able to learn and grow.”

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.

**ON ACCEPTING THE UNKNOWN**

“So far, Hunt has come up against one very significant issue in this research: The model has yet to produce the expected results, which means she and Pearce must continue exploring alternative approaches to observe the spreading of tau proteins in the Drosophila. Learning how to fail has been the most humbling lesson of all. But that’s the thing about science, she says. Research lies in being able to accept the unknown it all and pivot to other experimental approaches.”

“Relinquishing control to the cells and the science is really hard, but really exciting,” she says. “Accepting that I might fail has been the hardest thing I’ll ever do, but it’s also where I’ve made the most progress.”

**ON WORKING TOGETHER**

“She’s a brilliant young woman and a very engaging teacher,” says Hunt. “Frankly, I feel a little spoiled to have Jenna in my lab,” admits Pearce. “She has such a strong passion for research and science — and such unique intelligence. She even works with me over winter and summer breaks!”

“I’ve always been very impressed by Jenna,” says Pearce. “Not many first-year students have time to pursue research, and she was asking about joining my lab as easily as her orientation week.”

The pair has now been working together for three years.
When scientists have a business background, innovation flourishes and drives society forward.

By Jen A. Miller

A career in science seemed like destiny for John P. (Jay) Borneman, PhD. His father was a homeopathic pharmacist, as was his father's father before him, and his father before him. But instead of going right to pharmacy school at the University of the Sciences (as his father and grandfather had), Borneman took a slightly different path, gaining both chemistry and business acumen on his way to becoming an entrepreneur. He earned three degrees from Saint Joseph’s (and was one of multiple people in his family to graduate from the University, including his wife, Anne Marie Borneman ’08 (EdD)): his bachelor’s degree in 1980, an MS in chemistry in 1983 and an MBA in 1987. That same year, he joined the Standard Homeopathic Company and its subsidiary Hyland’s Inc., where he served as CEO until he retired last year (he still serves as chairman). He credits his education and expertise in business and chemistry as a driving factor in that success, both for himself and for Hyland’s.

“For every five PhDs, you need an engineer,” he says. “The thread between the two is entrepreneurship. If you understand both, you’re connecting the dots all the time.”

Scientific breakthroughs rarely go anywhere without the business community, and the business community identifies needs that only scientists can meet. Sometimes that means business and science partners working together, or the scientists developing the business know how themselves.

The recent integration of Saint Joseph’s University and the University of Sciences capitalizes on the institutions’ respective strengths, and will make it easier for scientists with an interest in business to gain that knowledge for the betterment of their careers and the discoveries they’ll shepherd into the world.

“We want our scientists to know how to live and work in that space, whether they partner with businesses or become the business-scientist expert themselves,” says Joseph A. DiAngelo, EdD ’70, dean of the Haub School of Business. “The innovations that come out of these dually trained experts are already changing the world. By offering more scientists opportunities to have a business education, we’ll be driving innovation forward.”

In the Greater Philadelphia area, 41% of the region’s jobs are supported by “meds & eds” and nearly every major pharmaceutical company has operations in Philadelphia or nearby suburbs. DiAngelo points to newer companies like Jazz Pharmaceuticals, which focuses on cannabinoid science to create new treatment options for serious diseases, and Ipsen Therapeutics, a
company that develops gene therapies, setting up bases in Philadelphia as proof of the city’s position as an international science hub. “There’s a need to train the future professionals in those industries with business in mind, he explains. “Whether we like it or not, scientists need to understand business. Pure academics may have a great idea, but a scientist with business know-how is going to ask ‘how are we going to fund the idea’ and figure out how to make it happen,” adds Sinclair Smith, ScD, dean of the School of Health Professions.

“For a scientist to bring an idea to market, understanding how to communicate with the business world is critical. The best person to pitch an idea and bring it to market is the person who developed it. If we can provide that business background to scientists, they can be the best advocates for advances that could change the world.”

Scientists are also bringing their expertise to public and private companies to help them sharpen their offerings and drive innovation from within, whether that’s pharmacists working for insurance companies, food scientists determining how to market new organic foods, or chemists navigating environmental protection and safety management from within a chemical manufacturing company.

This is especially true in Philadelphia. “You’ve got this high density of very smart people, fine educational institutions and an ecosystem of finance that can get behind those projects. Philadelphia is well positioned to be the lead on all of this,” Borneman says. “The confluence of business and science is a powerful thing. It’s driving the region and the country’s economy, and it will make a better world for all of us.”

Regulating the Safety of Science

Understanding the regulatory world and ensuring product safety are critical steps in making discoveries widely available, which is where business scientists like alumna Catherine Croke, DBA, come in. Croke started her career working for a private forensic toxicologist while also studying for a degree in pharmacology and toxicology at the University of the Sciences. She never thought she’d need business training, but while a student, she was mentored by Joan Tarloff, PhD, a longtime USciences professor, who “opened my eyes to the career possibilities that existed at the intersection of the two fields,” Croke says.

Tarloff also showed her that there was a path for women to advance in the sciences at a time when the industry was dominated by men.

Croke transitioned to a job in food safety testing for the U.S. Department of Agriculture, where she approved imitation seafood products. After graduation, she worked in a number of product safety positions, where she saw how more formal business training could enhance her career. So, she went back to school and earned a master’s degree at Saint Joseph’s in environmental protection and safety management while she was a product safety manager at Adema, a chemical manufacturing company.

That led to a job at Evonik, a specialty chemical manufacturer, where Croke’s been for 22 years. She’s now senior advocacy and compliance manager, maintaining compliance for Evonik’s facilities in North America. She also recently earned her DBA in business administration at Columbia Southern University.

“My doctorate was the culmination of my schooling to meet all of these career opportunities,” she says. “My combined business and science background enables me to better lead discussions with regulatory agencies and advocate for new policies within emerging markets.”

Croke is seeing more public interest in companies like Evonik and tighter regulations for all industries up ahead, which means that business training is becoming more critical. It will help companies interact with the public and explain aspects of their business, and also push forward innovation to meet sustainability benchmarks. She sees Saint Joseph’s playing a key role in preparing future scientists to be ready for whatever the future brings.

“It’s important to raise the bar, and working together can help the schools do that,” she says of the now-merged schools. “They helped develop my career and opened my eyes by providing mentorship opportunities that I would not have been able to find on my own.”

The competitive advantage you have as a scientist in business is to adapt and change faster than your competition, and the only way you can adapt and change is to understand both the science and business opportunity,” says Croke. “Someone who speaks the language has to be the liaison to the business to introduce things into market and to get regulatory approvals. That’s a big part of what my team and I do every day.”

Borneman has also seen how having that formal science background can help push business projects ahead and even have government officials return your calls faster, which is one reason he went back to USciences in 2007 to earn his PhD in health policy and public health from USciences in 2007. He also holds a doctor of business administration from Columbia Southern University.

“Business scientists like alumna Catherine Croke, DBA, came in and will make a better world for all of us.”

“Regulating the Safety of Science”

“Propelling Discoveries Forward via the Business Scientist”

“What astonishes me is you talk to really fine scientists who come up with incredibly good ideas and they don’t protect their intellectual property, and they give this stuff away,” says Borneman. That doesn’t happen with scientists who have a business background, whether they earned that through a degree or picked it up along the way. Likewise, business-minded professionals own benefit from the ingenuity of a science background. “The competitive advantage you have as a scientist in business is to adapt and change faster than your competition, and the only way you can adapt and change is to understand both the science and business opportunity,” says Croke. “Someone who speaks the language has to be the liaison to the business to introduce things into market and to get regulatory approvals. That’s a big part of what my team and I do every day.”

Borneman has also seen how having that formal science background can help push business projects ahead and even have government officials return your calls faster, which is one reason he went back to USciences in 2007 to earn his PhD in health policy and public health. It also made him the fourth generation in his family to carry a USciences degree.

He thinks about his generation and the generations that will come after him, how critical it is for scientific discoveries to leave the academic space and enter the real world, and how business can help them break out. “It’s about a sustainable future, not only for us, but for the folks who come behind us,” he says. ■
New University Trustees

Seven new trustees joined the University board and began their four-year terms on June 1, 2022, under the leadership of Board Chair James M. Norris ’85.

John P. (Jay) Borneman, PhD ’80, ’83 (MS), ’87 (MBA), USP’07 (PhD) is the founder and principle of Oak View Point Partners, a privately held investment firm, and the chairman and retired CEO of Hyland’s Inc., a mid-size OTC pharmaceutical manufacturer. Borneman earned bachelor’s and master’s degrees in chemistry from Saint Joseph’s and an MBA with a concentration in finance from the Haub School of Business. He subsequently earned his PhD in health policy from the University of the Sciences. Borneman joins the Saint Joseph’s Board of Trustees after sitting on several boards of visitors, and subsequently serving as a trustee for USciences since 2016.

Doneene K. Damon, Esq. ’89 is the director and president of Richards, Layton & Finger, Delaware’s largest law firm specializing in some of the nation’s most complex and highly sensitive corporate, alternative entity and bankruptcy matters. In 2021 alone, Damon was named among the Philadelphia Business Journal’s Diversity Leaders in Business; the News Journal’s Most Influential Delawareans; Savoy Magazine’s Most Influential Black Lawyers; and a Women, Influence & Power in Law Managing Partner of the Year. Damon graduated from Saint Joseph’s as a business major and earned her law degree from Temple University.

Timothy G. Fallon ’76 was the president and CEO of Columbus Foods, Inc. from 2010 to 2015. Currently, he is a senior operating partner at Arbor Investments, LLC, a private equity firm focused on middle-market food and beverage companies. Fallon previously served four years on the Saint Joseph’s board from 2016–2020. He earned his undergraduate degree in food marketing from Saint Joseph’s and his MBA from Temple University.

Kelly Flanagan ’06, ’12 (MBA) was named executive vice president of business planning for the Jacksonville Jaguars in 2021. Flanagan joined the organization in 2012 and quickly was promoted as the club’s chief financial officer in 2014. She is responsible for providing integrated financial oversight across the portfolio of sports and entertainment properties, development and implementation of strategic initiatives, and the application of business analytics and insights across the organization. Flanagan earned her undergraduate degree in accounting and MBA from Saint Joseph’s.

Michael C. Hemley, Esq. ’72 is currently a senior advisor at Juniper Advisory in Chicago, Illinois. Hemley received his bachelor’s in international relations from Saint Joseph’s University and taught health law and policy at the University intermittently as an adjunct professor from 2006–15. Hemley earned his JD from Villanova and his MA from George Washington University. He most recently served as vice chair of the University of the Sciences’ Board of Directors.

Edgardo (Ed) A. Mercadante, USP’79, H’17 is the founder and CEO of MediTelecare, a leading telehealth provider for behavioral health in long-term care markets. He graduated from the University of the Sciences in 1979 with a bachelor’s degree in pharmacy. He was later given an honorary doctor of science degree in 2017 as part of his Founder’s Day Award. Mercadante has been a member of the University of the Sciences’ Board of Directors intermittently since 2000.

Michael J. Sofia, PhD, is chief scientific officer and co-founder of Arbutus Biopharma Corporation, a biopharmaceutical company focused on developing a cure for hepatitis B and coronavirus infections. He holds adjunct positions at Drexel University and the Baruch S. Blumberg Institute, an independent nonprofit research institute established in 2003 by the Hepatitis B Foundation. Sofia received his bachelor’s degree in chemistry from Cornell University in 1980 and his PhD in organic chemistry from the University of Illinois in 1984. He has received numerous awards for his work in developing a cure for the hepatitis C Virus, including the 2016 Lasker Award.

Michael J. Sofia, PhD, is chief scientific officer and co-founder of Arbutus Biopharma Corporation, a biopharmaceutical company focused on developing a cure for hepatitis B and coronavirus infections. He holds adjunct positions at Drexel University and the Baruch S. Blumberg Institute, an independent nonprofit research institute established in 2003 by the Hepatitis B Foundation. Sofia received his bachelor’s degree in chemistry from Cornell University in 1980 and his PhD in organic chemistry from the University of Illinois in 1984. He has received numerous awards for his work in developing a cure for the hepatitis C Virus, including the 2016 Lasker Award.