Stony Brook University

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100 Nicolls Road
Stony Brook, NY 11794-0605

Stony Brook University

MAGAZINE

WINTER 2024/2025

13

THE LEGACY OF JIM SIMONS

Celebrating the life of the visionary leader and pioneering mathematician

18

On our cover: Umbilic Torus, the sculpture donated by Jim and Marilyn Simons and the Simons Foundation in 2012, was designed by Helaman Ferguson as a celebration of mathematics.

ISSUE 13

Stony Brook University Magazine is produced by The Office of Marketing and Communications

Executive Editor: **Shelley Catalano**
Features Editor: **Liza N. Burby**
Copy Editor: **Susan Tito**
Art Director: **Karen Leibowitz**
Assistant Art Director/Designer: **Allison Schwartz**
Interim Vice President for Marketing & Communications: **Susan Foley**

We'd love to hear from our readers. Please send your thoughts on this issue or ideas for future stories to *sbumagazine@stonybrook.edu*.

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Cover photo by Pete Thompson/Utopia The Agency. Inside cover photos by Isabel Epstein, John Griffin/Stony Brook University and Juliana Thomas.

INSIDE THIS ISSUE

For some people, change can be scary. They like the status quo and perhaps fear the unknown. For others, it's an impetus to improve and to grow. For Stony Brook University, it's an opportunity to embrace new ideas as we continue our trajectory upward.

To keep us *Moving Forward* (p. 14) after the departure of Maurie McInnis, Richard L. McCormick — an experienced university president and renowned scholar of American political history — was named interim president on August 1. He shares his views on how he sees Stony Brook strengthening its positions as New York's flagship.

In May, we mourned the passing of Jim Simons, the visionary leader, pioneering mathematician and generous philanthropist. We take a closer look at the impact he has made on Stony Brook, science, education and more in *The Legacy of Jim Simons* (p. 18).

One of the first programs Jim and Marilyn Simons helped to create, in 1984, was the Simons Summer Research Program, which brings the brightest high school students from across the country to do research with our most distinguished professors. *Cultivating Curiosity* (p. 24) examines why this program has, and continues to be, so successful as it celebrates its 40th anniversary.

Paleontologists from the Department of Anatomical Sciences are making discoveries that are helping to expand our knowledge of evolution. See why they are *Not Your Average Fossil Hunters* (p. 28).

Our campus has also had one other change recently, the addition of a bronze statue to honor Wolfie, our beloved mascot. Follow the journey from arrival to unveiling in *Wolfie's World* (p. 34).

It is up to us, the people who live in interesting times, to embrace change and see where it leads us. Even a magazine can benefit from change or a new perspective, and that's something we will be exploring with our Spring 2025 issue.

We hope you enjoy this issue and look forward to telling you more stories about our amazing students, faculty, staff and alumni next year.

BEHIND THE SCENES

A film crew records a marine biology student with her professor in the marshes of Flax Pond, in Old Field, NY.

Captured by Dennis Murray/ Stony Brook University

DARE TO BE

At Stony Brook University, we are united by one simple truth: to be something more in this world, start with daring to be true to yourself.

See how we encourage our students to dare to dream.

Scan here or visit **stonybrook.edu/anthem.**

The following icons indicate that more content is available at *stonybrook.edu/magazine*

RELATED VIDEO

ADDITIONAL INFORMATION

SEAWOLVES SHOWCASE
Dancers dazzle on stage during the annual showcase, one of our most popular Homecoming traditions.

Isabel Epstein

BEE HAPPY
Sunflowers in bloom were distributed during the Homecoming Fall Festival.

John Griffin/Stony Brook University

A look at how our faculty are making a difference at Stony Brook and beyond.

Photo by John Griffin/Stony Brook University

A COMMITMENT TO COMMUNICATE

BY *Ellen Cooke*

Agnes He strives to improve connections across cultures through the Center for Multilingual and Intercultural Communication

Agnes He is a lifelong language lover. As a Chinese immigrant who came to the United States at 21, the long-time Stony Brook educator has lived, breathed, studied and taught the effect communication has on, as she puts it, "basically everything and everyone." It has been her focus in her role as a professor of applied linguistics in the Department of Asian and Asian American Studies (and, most recently, as the chair of the department). He is particularly interested in studying individuals whose native language is from another country; colleagues and collaborators trying to fully understand each others' unique cultural backgrounds and perspectives; and scholars working to address some of the world's biggest challenges in an increasingly global, multilingual and intercultural environment.

It's the latter, particularly, that inspired He to establish the Center for Multilingual and Intercultural Communication (MIC) in May 2014, with support from the College of Arts & Sciences and the University Senate. He said, "We started the MIC with a very simple belief, which is that the power to change the world for the better lies in our own capacity and commitment to communicate with each other more effectively and more equitably."

He, who arrived at Stony Brook in 1996 as a postdoctoral student, said the MIC investigates multilingualism for social justice, equity, diversity and inclusiveness. It also builds databases on multilingual development and informs the public on the means and meanings of developing multilingual and multicultural repertoire.

The center's scope has broadened over time due to intensified globalization, new technologies that affect communication, and an increasingly immigrant-rich U.S. environment with more diverse native languages. Evolving areas of study include ethical use of artificial intelligence, social justice issues as they relate to language, research on medical terminology, and cross-linguistic studies (with one current research project focused on intercultural engagement among Korean, Japanese and Chinese Americans). "Many of these issues are very important American problems, in addition to being global in scope," He said.

Ten years in, the MIC is going stronger than ever as a collaborative platform where students and educators can explore the complex and dynamic nature of communication involving participants from different linguistic and cultural backgrounds. It's a place where scholars from the humanities and social sciences often meet face-to-face to share, talk and exchange ideas about their own work as they also explore questions of shared interest.

While He is quick to point out it's not about her, the roots and origins of the center she's directed for the past decade have much to do with her own personal, academic and professional passions, interests and experiences.

As a Mandarin-speaking individual with a rudimentary knowledge of French and Spanish, He knows what it's like to grapple with speaking English as a second language. She's seen how stereotypes develop and persevere — people tend to 'blame' the person in the room with the accent when there is difficulty understanding what is being discussed, she said.

She's also studied and taught how languages can change and even disappear when native speakers emigrate to another country. And how language and dialect differences can pose unimaginable barriers to personal and professional relationships, shared research endeavors, technological innovations and solutions to world problems.

Throughout her life and career, she's also had a keen interest in investigating the factors that affect language learning and socialization for immigrants, and the importance of not just speaking but listening with intent and curiosity.

For the Greater Good

While communication barriers and solutions are something He takes personally, she said it was really for the greater good that she put her heart and soul into establishing the MIC.

"My biography is only important in terms of understanding why we're doing this, what's driving this," she stressed. "But it's the work we're doing now, and what we plan to do in the future, that matters."

The MIC began with two psychologists, two linguists and two scholars from the Department of Asian and Asian American Studies. In addition, a substantial $1 million grant from the National Science Foundation funded a study looking at communications between international teaching assistants and domestic students. He labeled this auspicious strong start as "the proof of concept, the validation that this was important work."

"MIC is a dream come true for scholars who care about language diversity, language justice, cross-cultural competency among our students, and our own ability to be part of the larger multilingual/multicultural world," said Shyam Sharma, an associate professor and graduate program director of The Program in Writing and Rhetoric. "This center has given me hope and inspiration that scholars can not only advance knowledge and perspectives to 'intellectually' promote these critical areas, but can also translate scholarship into community engagement initiatives in and beyond campus."

Sarah Jourdain, associate professor and chair of the Department of Languages and Cultural Studies, shared similar sentiments. "The MIC has collaborated closely with my department with the World Language Teacher Preparation Program, which I direct, and with the Language Learning Research Center, to foster increased engagement with language learning and teaching on campus," she said. "It has been a vibrant hub for collaboration among colleagues across departments and disciplines, particularly for grant writing, research and outreach to scholars across the globe."

A Milestone Year

In April 2024, the MIC marked its 10th anniversary and Suffolk County officially declared April 11 Stony Brook University MIC Day, "which was a really big deal for us," said He. In celebration of its milestone, MIC held several well-attended events. It began with a faculty research forum in May with more than 250 attendees representing 200 institutions from Asia, Africa, North America, Europe and Australia. And celebrations culminated in October with a two-day symposium that, in the spirit of multilingualism, featured a lecture by a U.K.-based Italian scholar.

Photo by Juliana Thomas

Professor Agnes He was inspired in part by her own experience to establish a center to help people from different cultures communicate more effectively.

Above, He gives remarks at the October symposium.

Specific research projects of note have included how young adult heritage or bilingual speakers use digital media for their social networks and an oral history project on women in U.S.-Asian relations.

MIC also focuses on funding both undergraduate and graduate student programs and provides many mentoring opportunities, as well as student outreach and workshops on language and rhetoric.

Melis Tozoğlu '24 served as an intern for MIC in 2022-23, conducting interviews with scholars, editing videos and promoting events on social media, and updating the MIC website. "I believe the center is important because in our increasingly globalized world, we must each be open to understanding those different from us," she said. "Current college students can see the topics they study being used to make real change, and in turn can foster a sense of a solid goal."

Communication Is Everything

"Communication is something we tend to trivialize, but whatever problems we're looking at — whether it's social justice or climate change — everything is about how we present ourselves, how we present our positions, our connections with other people, and how it is projected and how it is perceived. Very often, the projection is not the same as the perception, which is, I'd submit, the cause of so many miseries in this world.

"And that's not even talking about how language connects with power — how you project yourself, what speech rights and opportunities and obligations one has. This all has a lot to do with how we construct who we are and how we position other people," she said.

When it comes to the success of the MIC, He added: "I think for a center like this to take off, you need three things. You need to have a social-cultural reality, the multilingualism there, which we do. You also need to have faculty expertise, which we do. And you need someone who's crazy like me, who wants to get this done!" ★

Highlighting faculty who think outside the box

IT'S COMMON CENTS

BY *Liza N. Burby*

A developmental consumer researcher studies an unlikely College of Business demographic: children and their ideas about money

When it comes to finances, Margaret Echelbarger of the College of Business believes children understand more than they're taught.

Photo by Juliana Thomas

As a child whose parents involved her in household financial decision-making, Margaret Echelbarger didn't realize that writing checks and using a credit card as a middle schooler was unusual. But while she knew her parents simply wanted to make sure she was financially independent, her economic socialization experience as a middle-class kid led to confusion.

"I understood that my parents were very frugal and I interpreted that frugality as we were experiencing economic precarity that we weren't. I was in my 20s before I believed that my parents would be financially okay," said Echelbarger, who is assistant professor of marketing in the College of Business (CoB) at Stony Brook University.

It was when she was pursuing a PhD in developmental psychology that Echelbarger realized her experience provided an opportunity to "really understand how people develop their economic awareness, how they enter into market-related practices like negotiation, and decide how much things are worth from a very young age."

So she determined she wanted to help parents be able to communicate accurately with their kids about money. Echelbarger, a developmental consumer researcher who joined the CoB faculty in 2022, has been researching child consumer behavior to understand how they develop as decision-makers. Her goal: to improve well-being across the lifespan.

A Valuable Population

Echelbarger has found that children are sophisticated economists who are thinking about money long before they're able to spend it. She said, in fact, that children are the youngest consumers, responsible from an early age for influencing all purchases they want and need in households.

However, they are not the average study subjects for the department.

"Typically in the business disciplines we are relying on populations over the age of 18 for our research," said Stacey Finkelstein, professor and area head of marketing. "While we know this population shapes a huge amount of economic growth and development in this country from all of the things that we buy and consume on a regular basis, what Margaret's work does is shed light on a really important population: children."

For Echelbarger, who doesn't have a marketing degree, the interdisciplinary nature of the department with its focus on leveraging the power of marketing to improve well-being supports the theme of her work.

"It's why I'm here — to do research that I think is going to have a direct impact on people," she said. "In this department I have the support I need to do research that will allow me to go into communities and connect with families and help them feel more financially empowered. I get to explore how what we learn as children shapes our future financial decision-making, and how the conversations we have with our parents shape household decision-making in the moment and then across the lifespan."

The people who are helping to answer her questions are 5- to 10-year-olds whom she calls the "sweet spot," capable of understanding that they can buy more with $5 than one dollar, even if they're not the ones shopping. Echelbarger said her studies include how children make sense of economic inequality and how they think about debt.

"I've seen that kids really understand some of the key elements of negotiation and economic exchange. They know that you can only get what you can pay for in a purchasing context," she said.

How Kids Think

Echelbarger conducts research in the Child Consumer Behavior Lab she founded in the college. She recruits families to meet in one-on-one Zoom sessions, giving her greater geographical access beyond Long Island. She meets with families as far away as Hawaii, Chicago and Canada. Among her subjects was 7-year-old Edith Biddle of Honolulu who participated in the study when she was 6, answering questions through the use of gender-neutral characters about her ideas relating to the value of variety.

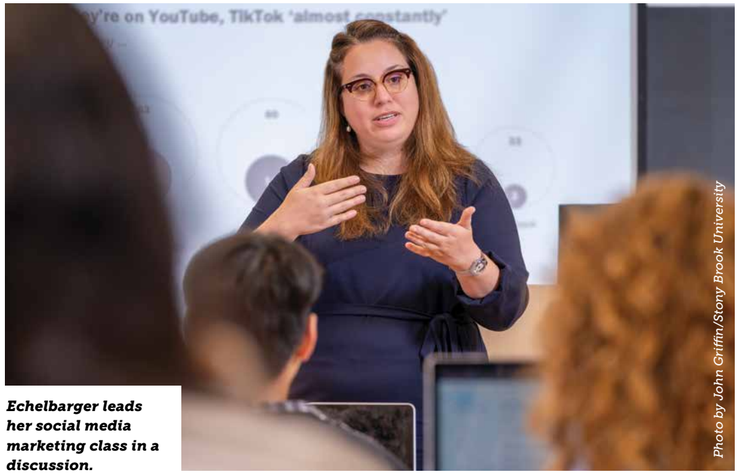
Her mother, Ashley Biddle, a developmental psychologist, said, "One of the most valuable things that Edith learned from doing the studies is that she gets to be the expert; that there's no right or wrong answer. Margaret told her we're just trying to learn how kids think. The valuable thing about kids participating in this research is that their ideas matter. You can tell that Margaret really cares about children and that she thinks it's an important topic for the world to understand more."

Echelbarger's main project centers on what parent-child conversations look like about money. She said she also wants to "identify strategies that parents can implement to facilitate conversations with their kids, to help them understand the economic world, and ultimately to help kids make better or healthier decisions."

She said preliminary findings show that parents who are willing to talk about spending have children who spent less in her lab store. "It suggests that a reluctance to talk about spending can actually backfire."

Echelbarger's other area of research is how parents think about children, social media and privacy. She said she and a colleague are trying to understand how parents communicate social media rules, how they learn about the platforms themselves, and the degree to which they are willing to share information about their children online.

As such, she devotes part of her social media marketing class to the associated ethical considerations. "I don't just want my students to be effective marketers," she said. "I want them to be ethical marketers and remember that there are people at the end of these advertisements and that in our quest to persuade, we really do have well-being top of mind."



Echelbarger leads her social media marketing class in a discussion.

Photo by John Griffin/Stony Brook University

TIPS FOR PARENTS

Here are Margaret Echelbarger's tips for how parents can help their children become educated consumers.

- Talk to them about money. Welcome them to participate in household decision-making. For example, when creating a budget, consider asking them how much they think different items cost. Ask them to plan a meal within a certain budget.
- When shopping, if a child says there's something they want, instead of answering, "We don't have money for that," say, "That's not in our budget" or "That's not what we plan to buy today, but we can think about that for the future."
- Allow children to safely fail. They will inevitably make mistakes, like buying something that they ultimately regret spending their money on. Let them experience these failures in a safe environment.
- Be the decision-maker you want your children to be. "Do as I say, not as I do" sends mixed messages and can be confusing for children who are trying to figure out the "rules" of childhood and adulthood.

Accessible Research

Echelbarger is also having an impact on the four undergraduate research assistants who have been working with her at community outreach events to recruit parents and children for her studies and helping to collect the data. One of them is Nicholas Takemoto, a junior double majoring in psychology and health science, who said he wanted to get the research experience for a possible PhD in psychology.

"What I learned working with Margaret is that I enjoy the interactive side of her research, talking to the parents and kids," he said. "I'm shifting towards wanting to go into possibly counseling or therapy. I think Margaret's been very helpful in making sure that although I'm currently doing research, I can stay open-minded in what I want to do."

Finkelstein said that Echelbarger's approach to engage the wider community beyond campus in her research offers a unique opportunity to highlight the university. "I feel really fortunate to have Margaret as a junior scholar in the department. Her research is exciting. How she talks about business research in the community is exciting. She's the sort of scholar that the university encourages, someone who can contribute to a discipline, but move beyond it to create a broader impact. She makes research accessible in a really important and impactful way." ★

HOUSING HOPE

★

Earlier this year, Stony Brook Medicine and Ronald McDonald House Charities NY Metro held a ceremonial groundbreaking event for a new house to be built on the Stony Brook University campus, to provide a safe, secure and comfortable environment for families of children who are receiving medical care at Stony Brook Children's Hospital. Construction is underway with the goal of being completed by 2026.

This will be the first Ronald McDonald House located in Suffolk County, and only the second on Long Island. The other Ronald McDonald House is in New Hyde Park in Nassau County, located adjacent to Cohen Children's Medical Center.

The three-story, 60,000-square foot building will include 30 private bedrooms with ensuite bathrooms for families, a media center, outdoor playground, interactive playrooms, a community kitchen providing free meals made by volunteers and fully stocked pantries, a fitness center, meditation room and laundry facilities.

"This facility will stand as a beacon of hope, compassion and support for families facing their toughest challenges," said William A. Wertheim, executive vice president for Stony Brook Medicine. "Our partnership with Ronald McDonald House Charities highlights the strength of collaboration, and I am delighted to be joining our resources and expertise to meet the diverse needs of our community."

Courtesy of Ronald McDonald House Charities

Families and former patients attend the Ronald McDonald House groundbreaking ceremony.

Photo by John Griffin/Stony Brook University

Coach Billy Cosh leads the Seawolves onto the field for his first SBU Homecoming game, where the Seawolves went on to upset the William & Mary Tribe with a 35-13 win.

WINNING WAYS

★

Under the guidance of new coach Billy Cosh, the Stony Brook football team has sprinted to its best start since 2018. As of press time, they were 7-2, and ranked fourth in the Coastal Athletic Association.

Cosh was named the third head coach in Stony Brook football's Division I era on December 13, 2023. He joined Stony Brook for his first career head coaching job after spending the 2023 season at Western Michigan as the Broncos' offensive coordinator and quarterbacks coach.

Stay up-to-date on the team's achievements and all other Seawolves Athletics happenings by following *@sbathletics* or *@stonybrookfb*. Or visit *stonybrook.edu/athletics*.

FUNDING FUSION

★

SBU has been selected to receive $2.5 million in funding from the U.S. Department of Energy Advanced Research Projects Agency-Energy.

The funding is part of the Creating Hardened And Durable fusion first Wall Incorporating Centralized Knowledge (CHADWICK) program. This program is focused on developing new, advanced materials and manufacturing techniques to enhance the durability of the "first wall" in a fusion power plant (where energy is derived from a process called fusion). That first wall is the critical armor that surrounds the fusion reactor's core plasma.

"The CHADWICK program represents an extraordinary opportunity for our department and Stony Brook University to contribute to the future of sustainable energy by developing materials that can withstand the extreme conditions of fusion power," said Dilip Gersappe, chair, Department of Materials Science and Chemical Engineering. "This pioneering work led by Professor Lance Snead could lead to transformative advancements in the durability and efficiency of fusion power plants."

Under this program Snead will work with Co-Principal Investigator David Sprouster, also a professor from the department, along with collaborators from the University of Tennessee-Knoxville, the Massachusetts of Technology, and the Sandia National Laboratory.

For more about this project, please visit *stonybrook.edu/emnl*.

Courtesy of Lance Snead

The SBU team behind CHADWICK.

USING AI TO IMPROVE CANCER TREATMENT

★

A team of Stony Brook University researchers are developing a new way to analyze breast cancer imaging that incorporates mathematical modeling and deep learning. The approach will be much more interpretable and robust compared to previous methods. Their goal is to improve disease diagnosis and chart a treatment plan specific to the biomarker imaging and modeling findings.

To better understand breast cancer, researchers center on understanding breast tissue architecture and its changes over time. While high breast density may be a risk factor for breast cancer, breast tissue complexity and changing architecture often makes subtle changes to tissue hard to detect by clinicians on standard imaging.

To tackle these hurdles, co-lead researchers Chao Chen, associate professor, and Prateek Prasanna, assistant professor, in the Department of Biomedical Informatics, are developing "TopoQuant," a suite of informatics tools for breast tissue images. TopoQuant is built on advanced mathematical modeling and machine learning. The team analyzes the structural complexity of breast parenchyma. They expect to use TopoQuant in collaboration with Stony Brook Medicine clinicians to uncover the intricate changes to tissue architecture that occur during cancer pathogenesis, disease progression, and radiation treatment.

The work is supported by a new four-year National Cancer Institute $1.2 million grant that runs through August 2028. Both Professors Chen and Prasanna are affiliated with the Stony Brook Cancer Center's Imaging, Biomarker and Discovery and Engineering Sciences Research Division.

Photo by Sam Levitan

BASKETBALL TIME

★

Fans have more than 25 opportunities to see the Seawolves in action at home during the 2024-25 season. The men's and women's teams posted a combined 26-4 record at home last season thanks to the consistent support from Seawolves Nation.

For those who can't be on campus, the men's team will have four games air nationally on the CBS Sports Network: January 30, February 13 and 15, and March 1.

Meanwhile, women's basketball is preparing for another winning season, now under the guidance of new coach Joy McCorvey, who joined the program earlier this year. McCorvey, an Alabama native and former standout player at St. John's University, returns to Long Island for her head coaching debut.

For complete schedules of all home games, please visit *stonybrook.edu/athletics*.

Photo by Matthew Zender

Photo by John Griffin/Stony Brook University

Sustainability Coordinator Erin Kluge and Transportation Demand Management Coordinator Greg Monaco at the Nobel Hall Wolf Ride Bike Share docking stations.

SHIFTING INTO SILVER

★

The League of American Bicyclists — the advocacy organization encouraging better bicycling and protecting the rights of people who bike — has honored Stony Brook University with a silver-level Bicycle Friendly University award in recognition of SBU's achievements in promoting and enabling safe, accessible bicycling on campus.

In 2014 and 2018, Stony Brook was awarded the bronze-level designation, making this year's award SBU's first rise in status since the institution's participation with the award program. The Bicycle Friendly University program includes 210 colleges and universities in 44 states, and is part of the League's Bicycle Friendly America program, which aims to make bicycling safe, comfortable and more accessible for all.

"Each year Stony Brook University continues to take steps toward improving sustainability, including our campus accessibility by bike, and we are honored to receive this designation," noted Tom Lanzilotta, assistant director of energy management and sustainability at Stony Brook.

Mobility and Parking Services, in partnership with the Office of Sustainability, is responsible for maintaining and tracking usage of the University's Wolf Ride Bike Share Program, one of the main biking initiatives on campus. Since its inception in 2013, the program has continued to increase ridership each year, notably achieving 72,187 rides during the 2023-2024 academic year.

HONORING STONY BROOK'S COMMITMENT TO INCLUSION

★

SBU recently received the 2024 Higher Education Excellence in Diversity (HEED) Award from *Insight Into Diversity* magazine, the oldest and largest diversity-focused publication in higher education.

As a recipient of the annual HEED Award — a national honor recognizing U.S. colleges and universities that demonstrate an outstanding commitment to diversity and inclusion — Stony Brook was featured, along with 113 other recipients, in the December 2024 issue of *Insight Into Diversity*.

"Stony Brook's recognition with the prestigious HEED Award is a testament to our unwavering commitment to inclusivity and excellence," said Judi Brown Clarke, vice president for equity & inclusion and chief diversity officer. "This achievement reflects a year filled with remarkable strides in diversity, innovation, and community engagement, showcasing the strength of our diverse voices and the transformative impact of our collective efforts."

To view the issue featuring SBU, visit *insightintodiversity.com*.

MOVING FORWARD

With an infusion of new enthusiasm, SBU continues its upward trajectory

BY *Shelley Catalano/ PHOTOGRAPHY John Griffin/Stony Brook University*

stonybrook.edu/magazine

There's no question that Stony Brook University has been reaching new heights, as evident by the many national accomplishments it has recently achieved. And we are committed to keeping that trajectory moving in the right direction.

In 2023, Stony Brook was named the anchor institution of the New York Climate Exchange research center on Governors Island; awarded one of the largest gifts to a university in American history with a $500 million unrestricted endowment from the Simons Foundation; and achieved its highest-ever rankings among *U.S. News and World Reports'* Best Colleges listing.

Above: Interim President Richard McCormick gives the State of the University Address.

McCormick meets with the football team before their first game.

MOVING FORWARD

To keep that upward momentum going, an experienced, energized interim president was appointed to guide Stony Brook following the departure of Maurie McInnis, who announced in May she was stepping down to become president of Yale University.

SUNY Chancellor John B. King and the SUNY Board of Trustees announced in July they had selected Richard L. McCormick to lead Stony Brook while a search for SBU's seventh president began.

McCormick has more than four decades of experience in higher education, most recently serving as president emeritus and Board of Governors Professor of History and Education at Rutgers University. He previously served as president of Rutgers and the University of Washington, and as provost at the University of North Carolina at Chapel Hill. He is also a renowned scholar of American political history.

"Although my title is interim president, my time spent here will be active and engaged, and I am thrilled to be Stony Brook's leader at this exciting time," President McCormick said after he arrived on campus on August 1. "I believe that, working together with the entire campus community, we can ensure that Stony Brook's permanent president will inherit a university that is even better than it is today. And that is saying a lot.

"My top goal is to maintain Stony Brook's momentum. President McInnis and her leadership team advanced Stony Brook on a phenomenal trajectory of success and exceptional accomplishments, and I want to keep that moving forward," he continued.

"There are so many exciting initiatives underway that are bringing Stony Brook to greater academic and research excellence every day. I also have some ideas of my own that may not come to complete fruition during my presidency, but I expect will reveal some solid recommendations for the new president to consider and build upon."

President McCormick shared these ideas and other priorities during his State of the University address, held on September 25. He also highlighted more of Stony Brook's recent accomplishments (see stats below).

What's Next?

During his address, President McCormick stressed that while SBU was named a flagship by Governor Kathy Hochul, he noted "we cannot be content to be called a flagship. We must actually BE one. What will it take for Stony Brook to become a true flagship university? What must we do? What challenges must we meet?"

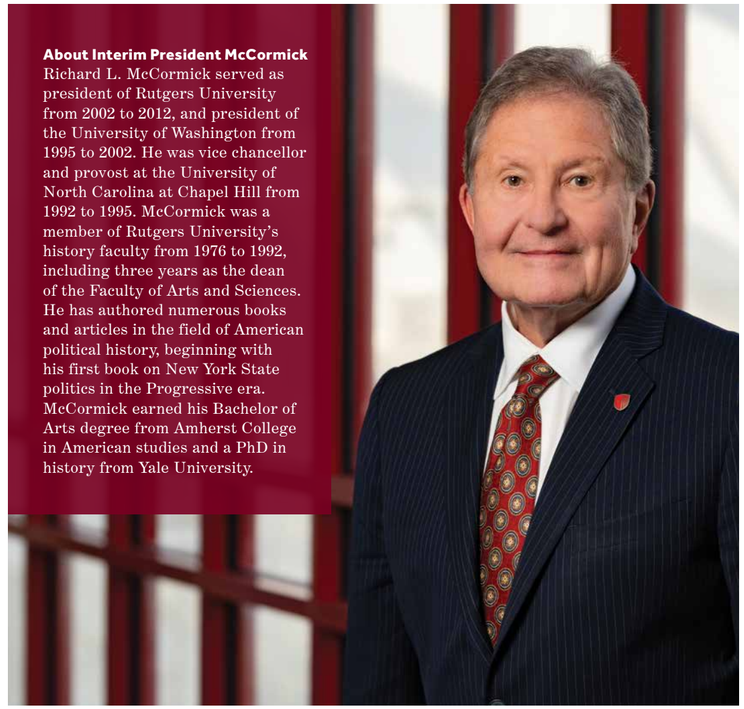
He then outlined several focus areas to be the flagship New York deserves, including: expanding Stony Brook research opportunities; deepening teaching and research initiatives between East and West Campuses; improving our aging infrastructure and modernizing facilities; increasing our enrollment as a first-choice destination for students from New York, the nation and the world; and expanding our residential footprint to allow more undergraduate and graduate students to live on campus.

Projects already underway include the launch of a new Shared Resources Organization to design and develop high-performing computers; creation of a $10 million venture fund to provide professors with grants to pursue translational research; and the creation of a new Seawolves Village, adding 500 beds to the residential footprint for Fall 2025. ★

President McCormick (center), next to Chancellor John. King, at a roundtable discussion on the value of public higher education in New York.

About Interim President McCormick

Richard L. McCormick served as president of Rutgers University from 2002 to 2012, and president of the University of Washington from 1995 to 2002. He was vice chancellor and provost at the University of North Carolina at Chapel Hill from 1992 to 1995. McCormick was a member of Rutgers University's history faculty from 1976 to 1992, including three years as the dean of the Faculty of Arts and Sciences. He has authored numerous books and articles in the field of American political history, beginning with his first book on New York State politics in the Progressive era. McCormick earned his Bachelor of Arts degree from Amherst College in American studies and a PhD in history from Yale University.



AN UPDATE ON THE PRESIDENTIAL SEARCH

The search for Stony Brook's seventh president is now underway. Kevin S. Law, chair of the Stony Brook Council, is leading the search. He previously chaired the search that selected Maurie McInnis in 2020.

In September, the search committee began meeting with members chosen to represent the diversity of Stony Brook and in accordance with SUNY policy and guidelines. Law noted that "members are committed to conducting a search that yields an accomplished, visionary and inspirational president to lead Stony Brook University as it continues its forward trajectory as one of the top public research universities in the United States."

The search committee is advisory to the SUNY Board of Trustees and consists of 23 faculty, staff, Stony Brook Foundation members, students, administration, alumni and Stony Brook Council members who will "conduct the search with a dedication to considering the best overall interests of the institution rather than those of any one constituency," said Law.

To aid in the search, Stony Brook has hired Spencer Stuart, an accomplished education recruitment firm with deep experience at the highest levels of academia.

Members of the Stony Brook community are encouraged to visit the presidential search website to stay informed of the progress of the search as it will contain all relevant public information related to the process. Comments, suggestions and recommendations may also be submitted to *PresidentialSearch@stonybrook.edu*.

Available on the website is the full list of all search committee members as well as the "Position and Candidate Specification" document, which outlines the qualities and experience the committee is looking for in a candidate to lead Stony Brook.

For more information, visit stonybrook.edu/pres/search.

2024 PRIDE POINTS

MIDDLE STATES ACCREDITATION

"After a yearlong process, the Commission on Higher Education confirmed Stony Brook's accreditation with zero recommendations. That means that we met in full every single one of the many expectations they have for a university like ours,"

— PRESIDENT McCORMICK

4,042 FIRST-YEAR STUDENTS

LARGEST CLASS EVER!

↑ 13% FROM 2023

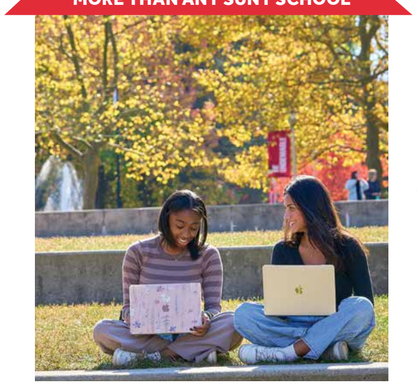
262

LARGEST EOP/AIM CLASS IN SBU HISTORY

Sidebar photos by Isabel Epstein and Juliana Thomas.

55,879 APPLICATIONS

MORE THAN ANY SUNY SCHOOL



2024 RECORD FUNDRAISING

MORE THAN 9,000 PEOPLE

PLEDGED OR CONTRIBUTED

$655M

$563 million of which will go directly into SBU's endowment.

HISTORIC FUNDRAISING YEAR

THE LEGACY OF JIM SIMONS

Honoring the extraordinary impact of the pioneering scholar, mathematician and philanthropist

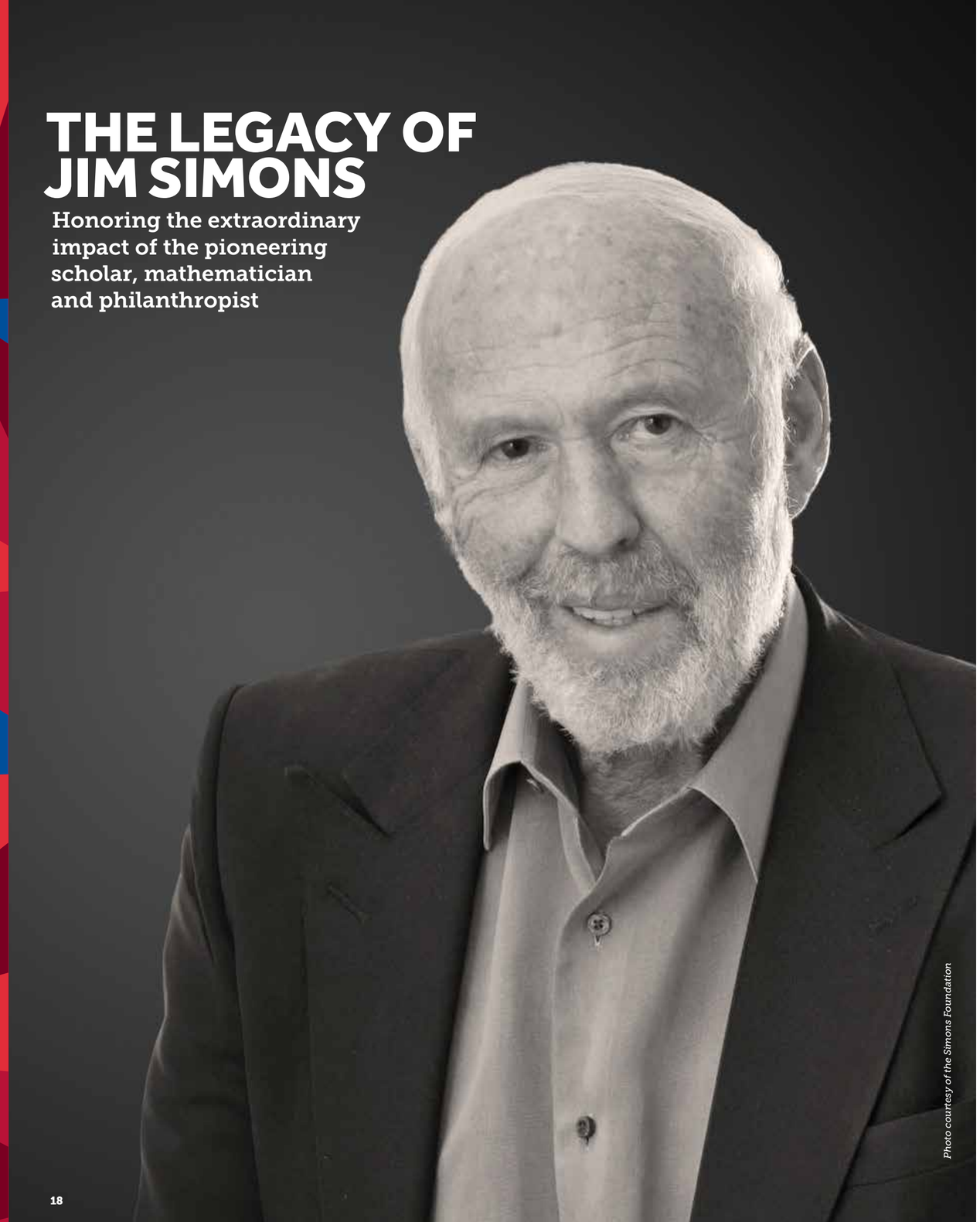


Photo courtesy of the Simons Foundation

Beloved friend, generous philanthropist, pioneering mathematician and visionary leader James H. Simons died earlier this year at the age of 86.

For six decades, Jim Simons was Stony Brook University's most vocal champion. His teaching, research, academic and volunteer leadership, and philanthropy have forever transformed the university and his generosity of spirit was matched only by his probing intelligence and profound optimism for the future. Whether as chair of the Department of Mathematics or his leadership on the Stony Brook Foundation Board of Trustees, Jim always saw Stony Brook's potential. He looked beyond what was and saw what could be — and he helped bring that future to life.

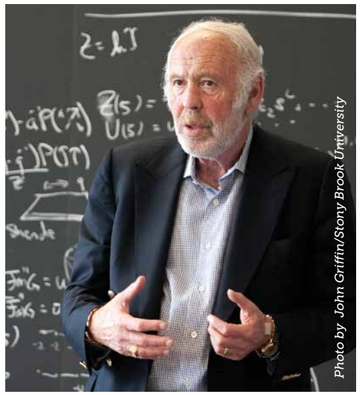


Photo by John Griffin/Stony Brook University

"Jim was a remarkable friend and advocate," said former President Maurie McInnis. "Stony Brook is incredibly fortunate to have been a part of his life and to have shared in his generosity, brilliance, humor and unending curiosity about the world around him. The University is infinitely better because of Jim, from the students he taught to the research he led, the faculty he supported, and the programs he helped build."

An Enduring Impact

When then Stony Brook President John Toll hired Jim to lead the Department of Mathematics in 1968, he could not have foreseen the magnitude of his decision. As the youngest chair in the history of the university, Jim joked that he was given the opportunity because he was the only person who would accept the challenge. Jim's stereotypical humor aside, he brought his curiosity and intellect to bear on the role and built one of the nation's top math departments during his 10-year tenure as chair.

Jim unassumingly credited his success to the team he recruited: "I was able to hire some great people…and we really built up an outstanding department. And that was fun."

One of his most prized relationships was with his colleague in the Department of Physics, Nobel Prize winner C.N. Yang and founding director of the eponymous Institute for Theoretical Physics on Stony Brook's campus. Their many conversations inspired Jim's deep interest in the intersection of geometry and physics, ultimately leading to the establishment

Photo by John Paraskevas/Newsday

Top: Jim Simons giving a talk at the Simons Center.

Above: Jim in front of the Umbilic Torus, 2013

of the renowned Simons Center for Geometry and Physics (SCGP).

"From Archimedes to Newton to Einstein, much of the most profound work in physics has been deeply intertwined with the geometric side of mathematics," said Jim upon the 2008 announcement of the gift that would fund the SCGP. "Since then, in particular with the advent of such areas as quantum field theory and string theory, developments in geometry and physics have become if anything more interrelated. The new Center will give many of the world's best mathematicians and physicists the opportunity to work and interact in an environment and an architecture carefully designed to enhance progress. We believe there is a chance that work accomplished at the Center will significantly change and deepen our understanding of the physical universe and of its basic mathematical structure."

Since then, the SCGP has evolved into an internationally renowned think tank whose permanent members have been elected as Fellows of the Royal Society, the American Mathematical Society, the Japanese National Academy of Sciences, as well as received the Fields Medal, Shaw Prize, Packard Fellowship, Clay Research Award and Dannie Heineman Prize, in addition to many other awards.

Beyond his academic leadership, Jim helped inspire the next generation of volunteer leaders through his participation in and stewardship of the Stony Brook Foundation Board of Trustees.

"One of the great privileges of my life has been to know and work with Jim Simons for the past three decades," said Richard Gelfond '76, Stony Brook Foundation Board of Trustees Chair. "His service on the Board strengthened all of us. He had a way of immediately getting to the fundamental issues and asking the right questions. His unique wit, incredible intellect and philanthropy, particularly toward Stony Brook, will always be remembered. I will miss him mightily."

> "One of the great privileges of my life has been to know and work with Jim Simons...His unique wit, incredible intellect and philanthropy, particularly toward Stony Brook, will always be remembered."
>
> — RICHARD GELFOND, CHAIR, STONY BROOK FOUNDATION BOARD OF TRUSTEES

Far left: Jim Simons, circa 1968.

Left: Jim with C.N. Yang.

Below left: Jim with former president Shirley Strum Kenny.

Center: Jim at a commencement ceremony.

Below: Jim with Richard Gelfond.

Photo by Ann Billingsley

Photo by Sam Levitan

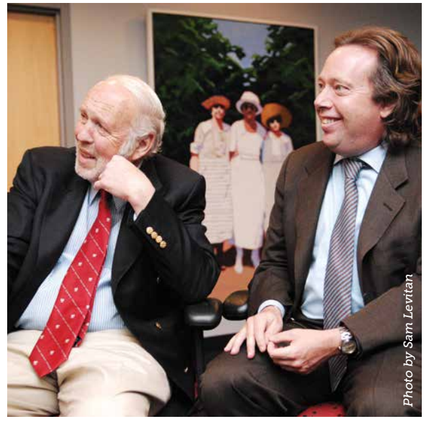


Photo by Sam Levitan

Photo by John Griffin/Stony Brook University

The MART was made possible by the Simons' 2011 transformative gift.

Astonishing Philanthropy

Jim's influence at Stony Brook extends far beyond his intellectual contributions. He met his wife Marilyn through Stony Brook, and together they created an extraordinary legacy of impactful philanthropy for the university that has surpassed $1 billion. As if their own remarkable contributions weren't enough, the Simons directly inspired more than 2,100 people to contribute an additional $230 million in philanthropy for scholarships, faculty support and the university's endowment.

Through Jim and Marilyn's foresight, strategic counsel and investment, they have been instrumental in making Stony Brook a highly ranked national research university and an unmatched agent of progress and social mobility.

Examples of some of Jim and Marilyn's substantial investments include:

The **Simons Center for Geometry and Physics** (SCGP), which opened at Stony Brook University in 2010 thanks to Jim and Marilyn's philanthropic support and Jim's belief that progress in mathematics and theoretical physics can be made when researchers come together in an environment that encourages the sharing of ideas, bridging divides and increasing innovation.

In addition to the center, the Simons established the **Simons Math and Physics Operating Funds** to ensure that Stony Brook's Mathematics and Physics departments consistently rank among the top in the nation.

The Simons also played a significant role in elevating what is now the renowned **Renaissance School of Medicine**. Through a matching challenge gift announced in 2011, Jim and Marilyn transformed research across several areas of the medical and life sciences. Ultimately, their matching gift and the philanthropy it inspired provided critical funding for research excellence in the School of Medicine, as well as other parts of the university, faculty hires through new endowed professorships, and recruitment of top-level graduate and undergraduate students. As a result of this historic investment, Stony Brook was able to build the Center for Medical and Research Translation (MART).

Announced in late 2020, the **Presidential Innovation and Excellence Fund** has enabled Stony Brook to attract preeminent scholars, pursue cutting-edge research, and win leadership of the Center for Climate Solutions on Governors Island through the New York Climate Exchange. The Simons Foundation provided seed money for the fund, with a matching challenge that attracted additional philanthropy from other generous donors. This fund makes it possible for Stony Brook to invest in current strengths and pursue big and bold opportunities that address the world's most critical challenges of the future.

The **Stony Brook Simons STEM Scholars Program** welcomed its inaugural cohort in 2023. Spearheaded by David Spergel, president of the Simons Foundation, and championed by Jim and Marilyn, the program provides comprehensive financial support for some of the nation's most talented students to pursue undergraduate STEM degrees at Stony Brook. By providing opportunities for historically underrepresented students to join the frontlines of global STEM challenges, this life-changing experience enables these exceptional scholars to become the change needed in the world today.

Photo by Conor Harrigan

Jim and Marilyn Simons with students from the Renaissance School of Medicine.

Jim and Marilyn's $500 million Simons Infinity Investment is the largest unrestricted endowment gift in American higher education, and its impact on Stony Brook is expected to reach $1 billion through matching contributions from New York State and other philanthropic leaders. Investments stemming from this gift will have a direct impact on the university's ability to pursue new opportunities and provide student scholarships, endowed professorships, innovative research, and excellent clinical care for generations into the future.

The Simons Foundation supported Stony Brook's partnership with Richard Leakey, helping to establish the **Turkana Basin Institute** in 2012. The institute, which was originally built to support the study of prehistory and human origins, now attracts researchers from around the world from multiple disciplines who are interested in studying the Turkana Basin's unique landscape and applying their findings to address some of the world's biggest challenges.

In support of the Stony Brook-led **New York Climate Exchange**, the Simons Foundation and Simons Foundation International pledged $100 million as a matching gift and have inspired other leading philanthropists and climate solutions advocates to lend additional support. As a coalition of the world's leading universities, corporations and community organizations, the Exchange will be an international hub of research, innovation, education, and collaboration to address the global climate crisis.

Founded in 1984, the **Simons Summer Research Program** has helped more than a thousand high school students conduct innovative research alongside esteemed faculty mentors (see more on this program on page 24).

Through these initiatives and programs, Jim's influence and impact spanned the tenure of former Stony Brook leaders John Toll, Jack Marburger, Shirley Strum Kenny, Sam Stanley and Maurie McInnis — and that impact lives on through the students, faculty, and research he enabled and through the relationships he made.

"Jim was among the finest people I've ever known," said Samuel L. Stanley, Jr., MD. "His magnificent mind was enhanced by his vision and optimism. The result was an incomparable leader and philanthropist who has helped provide Stony Brook with infinite possibilities and the capacity to reach unparalleled heights in the areas of research, education and discovery."


Photo by John Griffin/Stony Brook University


Photo by John Griffin/Stony Brook University

Left: David Spergel, president of the Simons Foundation; Maurie McInnis, former SBU president; and Jim and Marilyn Simons at the announcement of the gift to create the Stony Brook Simons STEM Scholars Program.

Right: Sam Stanley with Marilyn and Jim Simons.

Photo by Brett Simison

The Simons Center for Geometry and Physics opened in 2010.

"Jim was not only mathematically brilliant but also a visionary advisor about what Stony Brook could — and did — become," Shirley Strum Kenny said. "Stony Brook would not be Stony Brook without Jim's vision and commitment."

The satisfaction of seeing Stony Brook thrive fueled their generosity, as Jim reflected: "Stony Brook gave me a chance to lead —and so it has been deeply rewarding to watch the University grow and flourish even more." ★

"Jim Simons' devotion to Stony Brook was vast and strong. We will all continue to benefit from Jim's wisdom, leadership and extraordinary generosity for generations to come. His legacy will prevail as long as this university exists."

— RICHARD L. McCORMICK, INTERIM PRESIDENT

A DAY IN HONOR OF JIM SIMONS

BY Christine McGrath

On Wednesday, October 23, Stony Brook held a special event to celebrate the impact Jim Simons left on the university and in the mathematics and physics world. Held at the Simons Center Auditorium, it featured three panel discussions about Jim's connection to Stony Brook, which spanned six decades, as well as four short lectures on his scientific work and the impact he made in mathematics and physics and through his philanthropy on Stony Brook Medicine.

After a welcome by SBU Interim President Richard L. McCormick, Henry Laufer, Stony Brook Foundation trustee, gave the opening remarks. Laufer spoke about the many years he and Jim knew each other — from their time in the mathematics department at Stony Brook to working together at Renaissance Technologies, which Jim founded in 1982.

The first panel, moderated by Scott Sutherland, current chair of mathematics, discussed how Jim built it into one of the nation's top math departments. Together Jeff Cheeger, Silver Professor of Mathematics at New York University, and Anthony Phillips, professor emeritus at Stony Brook, painted the picture of what the department was like in the early days. Cheeger spoke about how Jim always placed emphasis on hiring the best possible mathematicians. And Phillips explained how Jim easily gained the confidence of the math professors and then Stony Brook President John Toll.

During the second discussion, moderated by George Sterman, director of the C.N. Yang Institute for Theoretical Physics, panelists spoke to Jim's philanthropic investments in both mathematics and physics. Several of Jim's former colleagues shared memories and anecdotes of how they worked directly with Jim on the planning and implementation of the programs he and his wife, Marilyn, along with the Simons Foundation, supported — including the importance of investing in mathematics postdocs and how the idea for the Simons Center for Geometry and Physics came about.

The final panel featured discussions on how Jim always looked beyond what was and saw what could be, and how the philanthropy of both Jim and Marilyn, as well as the Simons Foundation, is helping to build a university for the 21st century, including most recently, the Simons STEM Scholars Program and the Simons Infinity Investment. David Spergel, president of the Simons Foundation, noted that "Jim approached building things with the same joy he approached mathematics. He was intimately involved in many of the successes of these different programs that were discussed today."

Abhay Deshpande, Distinguished Professor of Physics and Astronomy, then shared how Jim was a strong proponent and supporter of the work being done at Brookhaven National Laboratory. Luis Alvarez-Gaume, director of the Simons Center, spoke about the importance of curiosity-driven science within the context of the work being done at the Simons Center. And Lawrence Martin, director emeritus of the Turkana Basin Institute (TBI), shared Jim's impact on the science being done at TBI.

The last panel speaker, William Wertheim, executive vice president of Stony Brook Medicine, discussed the lasting legacy of Jim, Marilyn and the Simons Foundation's 2011 gift of $150 million and how it helped to build the Medical and Research Translation Building. In addition, through the matching gift challenge, it enabled Stony Brook Medicine to recruit renowned physician-scientists from across the nation.

In between each panel, brief lectures were given by Distinguished Professor Blaine Lawson, who spoke about Jim's accomplishments as a mathematician; Professor Cumrun Vafa (chair of Harvard University's physics department), who discussed the impact that the ideas generated at the Simons Summer Workshops, that Jim and Marilyn and the Simons Foundation funded, had on mathematics and physics; Distinguished Professor Dmitri Kharzeev, who spoke about the effect of Jim's mathematics on physics; and Distinguished Professor Vincent Yang, the Simons Chair of Medicine in the Renaissance School of Medicine, who spoke about the impact the funding from the Simons Foundation had on the Department of Medicine at Stony Brook Medicine.

"Jim Simons' devotion to Stony Brook was vast and strong," said Interim President McCormick. "We will all continue to benefit from Jim's wisdom, leadership and extraordinary generosity for generations to come. His legacy will prevail as long as this university exists."

For more details about this event or to watch a video recap, please visit *stonybrook.edu/magazine*.

Photo by Kristy Leibowitz

A panel of former colleagues share memories of working with Jim Simons on math and physics programs.

Photo provided by University Archives

CULTIVATING CURIOSITY

The Simons Summer Research Program celebrates its 40th anniversary of inspiring the next generation of scientific innovators

BY *Shelley Catalano* / PHOTOGRAPHY *John Griffin/Stony Brook University*

stonybrook.edu/magazine

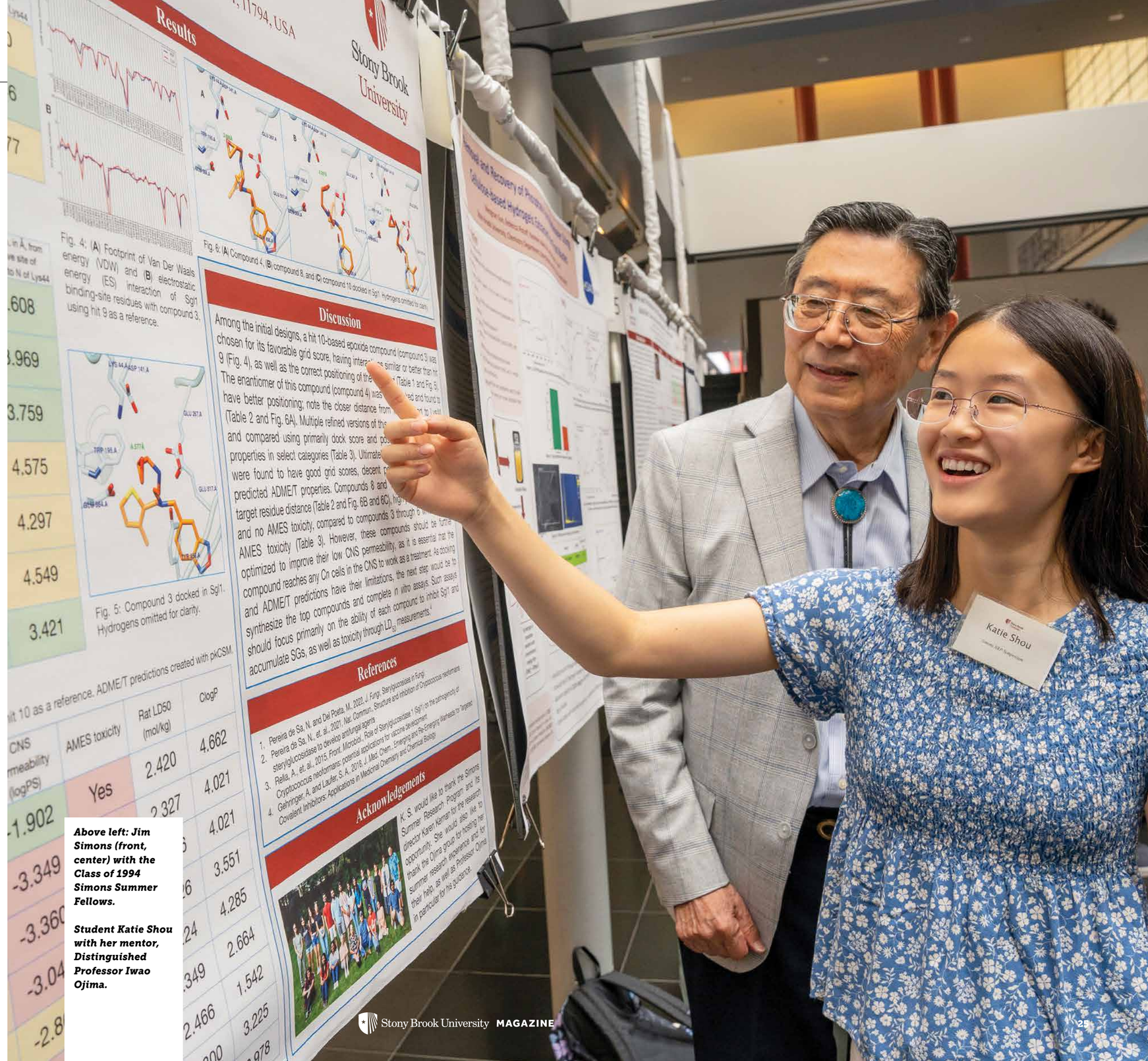
A surgeon improving the quality of life for breast cancer surgery survivors.

A psychologist striving to mitigate factors that could adversely affect astronauts' cognitive well-being during long space missions for NASA.

A climatologist using machine learning to improve tropical cyclone track forecasts so communities can better prepare for storms.

All these researchers have made discoveries that will further scientific exploration and enhance and improve our lives. But they also have one other thing in common: they all got their start in high school in the labs of distinguished Stony Brook professors through the Simons Summer Research Program (SSRP).

Since its inception in 1984, SSRP has invited more than 1,000 eager, accomplished high school rising seniors to spend their summers at Stony Brook University immersed in high-level research, all thanks to the incredible vision and support of Jim and Marilyn Simons. "Jim Simons had a really great idea that was a winning formula," said Karen Kernan, director of SSRP since 2001. "He wanted to take really talented, super bright and curious students and match them with the best mentors — Stony Brook's most accomplished professors — and expose them to new possibilities while encouraging them to pursue science education and careers."



Above left: Jim Simons (front, center) with the Class of 1994 Simons Summer Fellows.

Student Katie Shou with her mentor, Distinguished Professor Iwao Ojima.

The 48 Simons Fellows for summer 2024 came from all over the United States.

This winning formula has encouraged the majority of the Simons Fellows to do just that, going on to pursue masters' and PhDs in science fields, with many of them becoming doctors, researchers, professors and mentors (see sidebar below).

It all began when a handful of local high school students were selected to be the first Simons Fellows in a pilot program that paired them with one of six faculty mentors. The students spent six weeks working in the labs with the professors and their graduate and undergraduate students on a project, and then presented a poster of their research at a closing ceremony.

During the '90s, around 100 or so local students would apply each year. But that all changed when Simons Fellow students began regularly placing in the top of major science competitions, such as the Regeneron National Science Talent Search (originally called the Westinghouse and later Intel Search). SSRP has produced more than 242 semifinalists, 36 finalists and one winner, in 2012.

In the early 2000s, the applicant pool began rapidly growing. In 2024, the program received its most applications ever, more than 1,200, for the 48 available spots. "The hardest part of my job is saying no to applicants," said Kernan. "We now receive so many incredible applications and recommendations from across the country. Students know the value of this program."

What sets the program apart are the mentors, said Kernan. "We have really wonderful, dedicated faculty mentors who freely give their time and attention to our students, and that's what really keeps this program running.

"For the students, it's not only the experience that they have in the lab, but also being in a wider community of scientists," she continued. "They attend lectures from faculty from other disciplines and visit Brookhaven National Laboratory to see the world's best scientists working to solve the most complicated mysteries. For some students, it might be the first time that they're around students who are as interested in the science as they are. They're making good friends and getting a summer of real hands-on experience in a university lab."

Multiple SUNY Distinguished Professors number among the more than approximately 30 mentors each year, including Hal Metcalf (physics), one of the original faculty in 1984 who is still mentoring students today. Other longtime mentors include Professor Troy E. Rasbury, geosciences; Professor Jessica Seeliger, pharmacological sciences; Professor Brian Colle, marine sciences; Professor Yuefeng Deng, applied mathematics; and Berhane Ghebrehiwet, MD, professor of medicine and pathology. Ghebrehiwet mentored the 2012 talent search winner, Nithin Tumma, who won first place in recognition of his outstanding research relating to breast cancer therapy.

"It's important for me to mentor because if it were not for the mentors who gave me the opportunity, I wouldn't be where I am today," said Ghebrehiwet, who has been a mentor for as long as he has been at Stony Brook, more than 35 years. "These are all brilliant kids. We give them opportunities to do complicated experiments, but the most important thing I teach them is collegiality. Every person you meet in life is a potential friend you haven't yet discovered. That's my philosophy in life. The problems of science are solved when all of us work together because we bring different expertise and different talents to the program. And that's what I try to teach my students: teamwork, camaraderie and respecting each other."

WHERE ARE THEY NOW?

Barry Freifeld, PhD, one of the original Simons Fellows from 1984, was mentored by Distinguished Professor Hal Metcalf. Freifeld became a mechanical engineer, pursuing his own research, eventually becoming head of the hydrogeology department at Lawrence Berkeley National Laboratory in California, where he has worked since 1992.

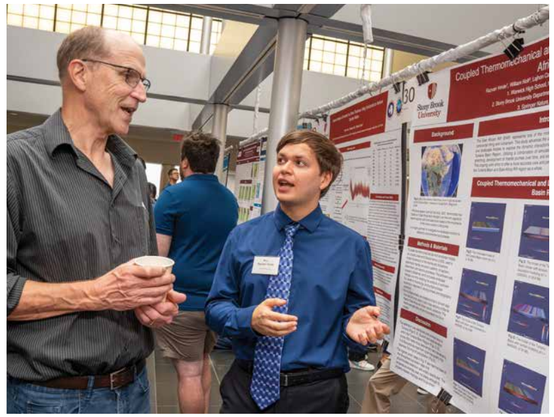
In a letter to Kernan a few years ago, Freifeld said that "the Simons Fellowship probably had more impact in my development than all of the colleges that followed. Professor Metcalf challenged me to work with his graduate students, and I was given free rein in the laboratory to support their research efforts. The amazing thing was I was never made to feel like a high school student, but was thrown into this exciting research lab, which stuck with me throughout my education and beyond."

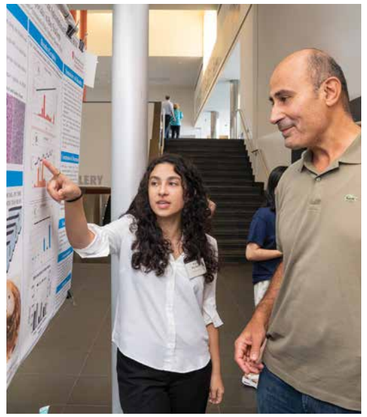
Tara L. Huston, MD '01, a '92 Simons Fellow, had the opportunity to do research in the lab of Professor Berhane Ghebrehiwet for two summers during high school before pursuing her undergraduate degree at Harvard University. She returned to Stony Brook to attend the School of Medicine and after her residency she joined Stony Brook in 2011 as faculty and as a practitioner. She is currently a professor of surgery and dermatology in the Department of Surgery's Division of Plastic and Reconstructive Surgery. Her mentor and friend Ghebrehiwet is now her colleague.

Tara Huston with her mentor, Berhane Ghebrehiwet, in 2014.

"The research that I did in Dr. Ghebrehiwet's lab afforded me a semifinalist position in the Westinghouse Talent Search (which is now called the Regeneron Science Talent Search). The research that I do now is predominantly on improving the care for women who are diagnosed with breast cancer and for those who are at high risk for developing breast cancer," she said. "My mentoring connection with Dr. Ghebrehiwet was very powerful and very motivational, and he was very encouraging on all levels, and I did not find that outside of Stony Brook. My choice to come back to Stony Brook for medical school was largely dependent on the incredible experience that I had as a Simons Fellow when I was a high school student."

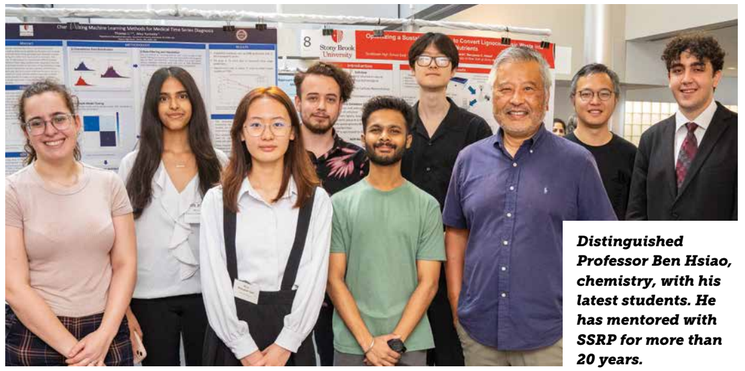
Wallace Marshall, PhD, who earned dual undergraduate degrees in electrical engineering and biochemistry from SBU in 1991, was mentored by Lawrence Reinstein in radiology oncology when he was a Simons Fellow. He now manages his own lab at the University of California at San Francisco (UCSF), where his goal is to "understand the mechanistic origins of cell geometry." Since he joined UCSF in 2009, he has mentored hundreds of undergraduate and graduate students. "Without a doubt, my summer research experience at Stony Brook in 1985 gave me my first view of what it feels like to do scientific research and launched my future career in biomedical research," he said.





Left: Razvan Verde speaks with his mentor, Professor William Holt, geosciences.

Right: Roz Hurd and mentor Professor Bassem Allam, marine sciences. Allam is in his 16th year with SSRP.



Distinguished Professor Ben Hsiao, chemistry, with his latest students. He has mentored with SSRP for more than 20 years.

"My professor has so much wisdom and so much insight for all of us," said Cecilia Anderson from Homestead High School, Cupertino, California, one of the students in Ghebrehiwet's lab this year. "He talked about how to overcome challenges and how to keep moving forward in life. I learned so much about the process of research, and while sometimes it may be tedious, the outcome is really worth it. And even if you don't get the results you want, you learn how to keep moving to the next step."

"I wanted to do research based on the ocean and ocean animals, and when I saw there was an opportunity to work in the Marine Animal Disease Lab to study shellfish and see the effect of ocean acidification and pathology on these really important species, I knew I had to apply," said Roz Hurd from Emma Willard School, Troy, New York, on her decision to become a Simons Fellow. Hurd was mentored by Bassem Allam, Marinetics Endowed Professor in Marine Sciences, and Emmanuelle Pales-Espinosa, associate research professor.

"At first I was a little intimidated because I had never really participated in research before and everyone around me knew so much, but the lab members were so kind and patient with me," she said. "They showed me how to do different experiments and procedures, and by the end, I kind of became a pro at it. I learned how to do the basic steps of DNA extraction, things like that."

Following her Simons Fellow experience, Hurd decided to focus on applying to schools like Stony Brook that are "geographically and academically connected to the ocean" to pursue a degree in marine biology.

While the 2024 Simons Fellows have begun applying to college, several are currently using their research projects to apply for the 2025 Regeneron Science Talent Competition, which will announce its semifinalists in early January.

What's next for the Simons Summer Research Program? For Kernan, the application review process starts in February, at which time she will work to match students with faculty mentors. And the cycle of introducing students to the transformative power of research begins anew. ★

To learn more about the Simons Summer program, please visit stonybrook.edu/simons.

Photo by Kirni Chapelle

Turner working on a plaster jacket of dinosaur bones from Late Triassic rocks near Qhemegha, South Africa.

NOT YOUR AVERAGE FOSSIL HUNTERS

Stony Brook's paleontologists are using extinct species to expand our knowledge of evolution

BY *Liza N. Burby*

A laboratory workbench displays the tools and debris associated with fossil discoveries. There's a saw that could be used in the dissection lab to cut open human bones, but here it opens the plaster and burlap jackets—much like the cast on a broken limb—that encase the rock surrounding fossils, which protects them from the elements in the field and for transport back to the lab. There's also a jackhammer and a small drill that resembles a dental tool that is used to chip away at the rocks encasing the remains of extinct species, and various brushes. A waste bucket holds broken rock saved for the tiny minerals they contain to be used for radiometric dating.

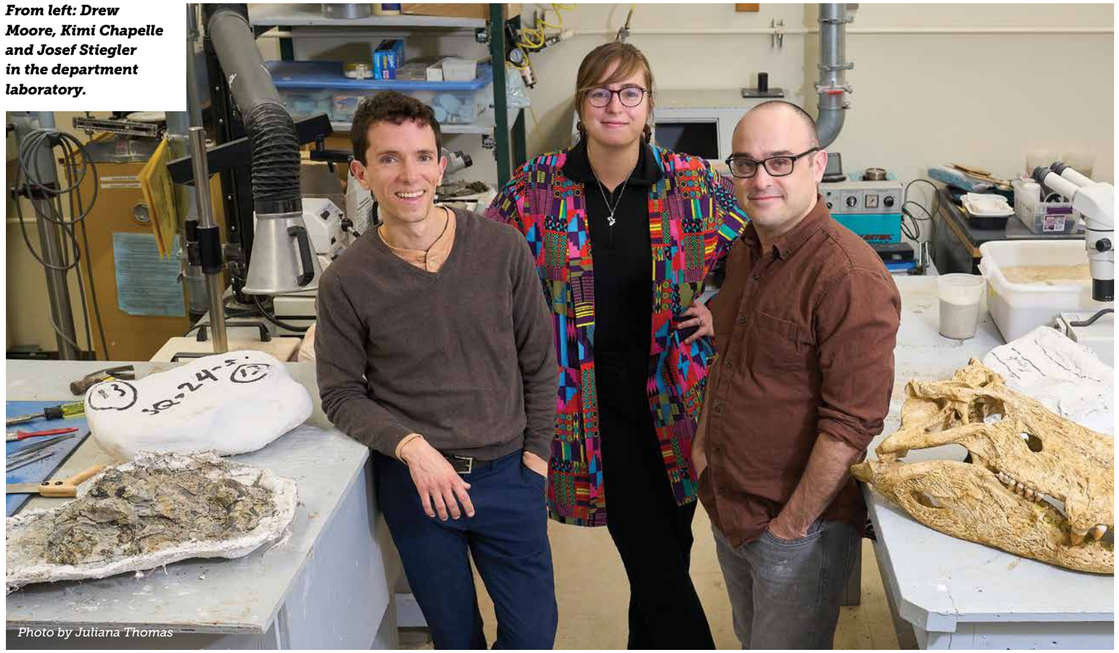
Paleontologists have been using some of these methods for two centuries. But these tools, housed in a lab in the Department of Anatomical Sciences in the Renaissance School of Medicine at Stony Brook University, are being used by internationally recognized researchers. What they're looking for are anatomical clues that can explain the biology and relationships of living and extinct species.

That's because paleontology isn't just about collecting fossils, according to Alan Turner, a professor and department chair. It's about

Photo by Juliana Thomas

Alan Turner and Maureen O'Leary in his office with two drawers that hold fossils from Madagascar and New Mexico.

NOT YOUR AVERAGE FOSSIL HUNTERS



From left: Drew Moore, Kimi Chapelle and Josef Stiegler in the department laboratory.

Photo by Juliana Thomas

trying to address clear biological questions about how the evolutionary process shapes an organism. What makes that possible is the newest tool at their disposal: advances in CT scanning, which allows them greater understanding about the parts of fossils they couldn't see otherwise, like internal features of the bone.

"You can CT scan a skull of a dinosaur, and that is going to tell you something about its internal anatomy — brain shape, brain volume and how the different internal parts are related to each other," Turner said. "You do that across enough animals, and now you're looking at big patterns of shape change, and those patterns may track with behaviors or ecologies."

Turner said the department's research and teaching is unified by the evolutionary perspective that the vertebrate body, including our own, is shaped by natural selection, and that understanding how systems function — and fail — begins from this principle.

Success Leads to Success

The department has already had a long-lasting impact on fossil discovery. In the 1990s, David Krause, an emeritus distinguished service professor and world-renowned paleontologist, was the lead discoverer of a suite of remarkable fossils from the Late Cretaceous of Madagascar. These include the "devil frog," scientifically called *Beelzebufo*, which at more than 16 inches long and weighing 10 pounds is the largest frog known to ever exist; as well as *Majungasaurus crenatissimus*, a 20-foot long theropod dinosaur, an on-campus cast of which is affectionately called "Stony Bones;" *Simosuchus clarki*, a rare, 2.5-foot long crocodile; and the 6-foot fossil of a small predatory theropod dinosaur called *Masiakasaurus knopfleri*.

Turner said this high-profile work from Madagascar has led to other projects within the department. "Stony Brook is known as a center for paleobiology — scientists who study the evolution, biology and extinction of plants and animals through the fossil record — and that helps attract more scientists who are themselves experts or up-and-coming talent in that field," he said.

For instance, while he's part of the team that still runs the Madagascar project, Turner — who joined the department in 2008 — also conducts research in New Mexico, where he and his team found some of North America's earliest carnivorous dinosaurs, 215 million-year-old animals. In 2020 Turner had two studies published in consecutive issues of *Nature*, one from his work in Madagascar and the other from New Mexico. He said the first study was on a "truly bizarre" fossil bird from the Late Cretaceous of Madagascar.

"This discovery of *Falcatakely forsteri* helped better understand convergent evolution of complex anatomy and provides new insight into the evolution of face and beak shape in the forerunner of modern birds," he said.

For the second he was part of an international team of researchers that discovered the evolutionary precursors of pterosaurs, flying reptiles that dominated the skies 200 million years ago who were a group of small dinosaur-like animals called *lagerpetids*. His work in New Mexico provided key fossils for this study.

Assistant Professor Andrew Moore is co-author on an article, published in the journal *Nature* in June 2024 that demonstrates that soaring birds co-opt a part of their lungs to improve the function of the pectoralis muscle. Moore said the discovery highlights the potential for other, unknown secondary functions of the lung, which is an investigation that is an active area of his research.

Assistant Professor Kimberley (Kimi) Chapelle, who joined the department in February 2024, was recently part of an international team that discovered and named a new species of dinosaur from the Mid-Zambezi Basin of northern Zimbabwe. She said the new dinosaur, named *Musankwa sanyatiensis*, underscores the potential of the region for future paleontological discoveries.

Diversity of Life

"These discoveries directly address questions like how do these really big Earth history events help shape the origin and the diversification of animals?" Turner said. "Those are the kinds of impacts that the research among our faculty have. We push the boundaries of understanding for these really important moments in Earth history. We hunt for the right kinds of fossils at the right time to look at the interaction between the Earth and the things that were living on it."

All of this takes place in anatomical sciences rather than a paleontology department because of the purpose of the research, he said.

"Many biology departments explore other parts of the diversity of life. Much of their focus is on genetic data and the intersection of molecular mechanisms and how those relate to evolutionary and ecological processes," he said. "However, the majority of things that have ever lived on the planet are now extinct and the only thing we get of them are their hard parts, no genetic data. The hallmark of understanding the past diversity of life, particularly when you're talking about vertebrates, is understanding all of the little details about the hard parts."

Part of that is understanding how the huge diversity of life is related and how soft tissue like the lungs, which Moore studies, interact with bones in ways that leave clues to reconstructing a more complete picture of a fossilized animal. To do so, Turner said, vertebrate paleontologists have to be comparative anatomists.

"Whether that is a dinosaur skeleton and the soft tissue that we know was attached to it, and the nerves that we know moved through the bone and the arteries that moved around them, whether that's a dinosaur or a human, we're all evolved from a similar pattern," he said.

The faculty also bring their anatomy training to teach Stony Brook's medical students, dental students and other health professionals in clinical anatomy.

Moore, who came to the department in 2018, said, "We're focused on what they need to know to be successful clinicians. And yet it's often impossible to ignore in conversations with students, why does this nerve do this unintuitive thing? Why are our guts laid out this way? Often you can't answer these questions if you don't go back in developmental and evolutionary time. There's no getting around the fact that we are the product of our evolutionary history."

World's Oldest Puzzles

One way to study that history is through growth patterns, which is one of the foci of Chapelle's work.

"If you cut fossil bones and look at them under a microscope, you can actually estimate how old a dinosaur was when it died, how fast it grew, and what kind of growth patterns it had," she said. "It's kind of like a tree. Every year they'll slow down their growth for a while because the resources aren't sufficient and during that time, they deposit a line in their bones. Those lines allow you to estimate how much they grew between different seasons."

She works with sauropodomorph dinosaurs, who appeared around 235 million years ago. She's specifically looking at their growth and development and is currently studying fossilized eggs and embryos of several dinosaur species, like *Massospondylus* from South Africa and *Mussaurus* from Argentina. Her task is to look at them through micro-CT images and powerful synchrotron scanning to reconstruct them without having to physically remove the rock surrounding the fossil.

A recent image on her computer shows an eye socket, flat and thin skull bones, the vertebrae, the arm and leg bones, all curled up in the fetal position.

"I'm moving them around on the computer and trying to figure out what it would have looked like if it was actually in the correct position," Chapelle said. "It's one of the world's oldest puzzles with some of the world's oldest known dinosaur eggs."

She said her research focuses on the Late

Right: Kimi Chapelle holding an elephant bone near Lake Kariba in Zimbabwe.

Below: Chapelle in Qhemegha South Africa lying next to a 4-ton jacket containing a sauropodomorph skeleton.

Photo by Lucy Broderick

Photo by Bailey Weiss


Photo by Alexander Beyl

Drew Moore collecting fossils in Late Triassic rocks near Ghost Ranch, New Mexico with UC Santa Cruz grad student Gaetano Palazzo (left) and SBU undergraduate Matthew Murray (middle).

Triassic and Early Jurassic periods, specifically to explore the mass extinction event that devastated Earth at that time. "What did that do to diversity and the ecosystem? Which animals replaced which? We're also trying to look at all of these growth dynamics to figure out what kind of strategies were they using to just make it through the extinction successfully?"

For Moore, who said he's trained as a systematist — someone who tries to build out the evolutionary tree of dinosaurs and understand their evolution — that means comparing extinct dinosaurs to their closest living relatives. For that reason, he's become an expert in bird anatomy, because birds are living dinosaurs. He's particularly interested in skeletal pneumaticity, the presence of air-filled spaces inside bones.

"As mammals, we have air-filled spaces in our skull. But that phenomenon is something we also see in the post-cranial skeletons of birds and their extinct relatives," he said. "By studying bird anatomy, we can better understand the respiratory soft tissues that invade bird bones and the functional benefits and structural consequences that come with having hollow bones. Then we can bring that information back into the fossil record to make better inferences, to come up with better ideas about why pneumaticity evolved, what it's good for."

Living Through an Extinction

The faculty are also interested in understanding past extinction events and how species adapted and survived. Research instructor Josef Stiegler, who came to the department in 2020, has been working in New Mexico in a quarry about a mile down the road from Turner.

"It's this incredible place where lots of dinosaur fossils are available from early in the evolutionary history of dinosaurs," he said. "I want to know what species are living at the time period that I'm digging in, who were they living with and when did they go extinct. That will help us to understand the mysterious, major extinction at the end of the Triassic Period that killed most of the reptile groups that were living at the time. We're trying to find more animals to name new species and figure out what the level of biodiversity was before the extinction."

Stiegler is currently working with the bones of a dinosaur that he says is the size of a poodle. "*Ornithischians* are all over the place in the Jurassic and Cretaceous, but they are almost entirely absent from the earlier Triassic fossil record, and I think this animal might be related to them," he said, adding that they were mainly herbivorous dinosaurs characterized by a pelvic structure superficially similar to that of birds. His recent discovery currently on his workbench at Stony Brook contains well-preserved hip bones, an arm bone and a leg bone.

Stiegler said the purpose of his work and that of his colleagues is to figure out how their research fits into the context of what we as humans need to understand.

"Today because of climate change, we see lots of animals going extinct, their populations diminishing," he said. "We're very much living through an extinction. And this end Triassic extinction, this mysterious one that I'm talking about that we don't have a good handle on, some of the things that are happening now, like global warming, were happening then too. The event at the end of the Triassic was more severe than the one we're experiencing now, but there's a possibility that ours can get that severe. Understanding how animals respond, how ecosystems respond to warming, may give us insights into the future of our planet."

Overlapping Interests

Turner said because his faculty are interested in similar kinds of questions, there's overlap to their work.

"We're looking at the anatomy of different things and trying to figure out what the evolutionary story is that unites them," he said. "We might be working on different organisms but often there is geographic overlap or overlap in the kinds of methods each of us uses. In the end, we are all interested in better understanding how groups are evolving, diversifying and perhaps, going extinct."


Photo by Ash Poust

Stiegler in New Mexico, 2024

"Understanding how animals respond, how ecosystems respond to warming, may give us insights into the future of our planet."

— JOSEF STIEGLER, RESEARCH INSTRUCTOR

Among their colleagues is Maureen O'Leary, a professor who joined the department in 1997 and has worked in Mali and Senegal. She studies the origin, evolution and systematics of the major groups of mammals and founded the database and web application MorphoBank in 2012. It's the central repository for peer-reviewed morphological matrices for phylogeny reconstruction (building the tree of life). The software enables teams of scientists to study phylogeny using phenotype, the observable characteristics of an organism. O'Leary is focused on separate monographic descriptions of newly discovered fossils from the Late Cretaceous-Early Paleogene of North America, Africa and Mongolia.

"My current work is to put unknown fossils into the intellectual record, to describe them, to illustrate them, to talk about, to analyze where they fit in the tree of life," she said.

Regardless of what period they each study, these paleontologists said they appreciate the public's fascination with dinosaurs. Moore said his research, in which he demonstrated that a Chinese sauropod dinosaur called *Mamenchisaurus sinocanadorum* had a 15-meter-long neck, the longest of any sauropod or any animal, generated so much interest last year it showed up as a clue in the British game show "Only Connect!"

Moore said, "Extinct animals inherently draw the public's attention and provide invaluable opportunities for evolutionary biologists and paleontologists to teach a broad audience about how evolution has worked to produce incredible organismal diversity, now and in the past." ★

Liza N. Burby is the features editor and an award-winning journalist.


Courtesy of Julia d'Oliveira

***Artistic rendering of the sauropod dinosaur* Mamenchisaurus sinocanadorum**

WOLFIE'S WORLD

Student Affairs unveils a lasting symbol of Seawolf pride, tradition and unity

PHOTOGRAPHY *John Griffin/Stony Brook University*

stonybrook.edu/magazine

Donor Ken Marcus '71 and his wife, Andee, returned to campus for Homecoming.

The one and only Wolfie the Seawolf, SBU's beloved mascot since 1995, made his debut in bronze on September 27 when the Division of Student Affairs unveiled a statue in his likeness during a lively ceremony.

The 7-foot statue (with bench), located between the Melville Library and the Psychology Building in the heart of the Academic Mall, will now be a gathering spot for current and future Seawolves to celebrate their school spirit for years to come.

"Wolfie spans many generations of Seawolves, connecting us all through his spirit and tenacity," said Interim President Richard L. McCormick during the festivities. "He is authentic, confident, inspiring and a supportive friend, reflecting the best of who we are as a community, and as individuals."

The statue, created by artist Virgil Oertle, was made possible by a generous donation from alumnus Ken Marcus '71. He was inspired by his post-Stony Brook experience at the University of Michigan, which has a very prominent Michigan "M" on the campus.

"It occurred to me, 'Wouldn't it be nice if Stony Brook had something like that on its central campus?" Marcus said. After brainstorming a few ideas with Student Affairs, the Wolfie statue was the one that stood out — even if, technically, Marcus wasn't a Seawolf during his time at Stony Brook.

"When I attended Stony Brook, we were called the Patriots," he said, noting that the 1960s was a particularly hard time for the country, making it even more difficult to embrace the idea of a mascot. "I think Wolfie is probably a beloved mascot for many generations that came after my ancient time, but I think it will probably prevail. I just hope that it becomes a focal point, a meeting place. Perhaps people will have their photos taken there when they arrive with their loved ones; when they graduate."

Marcus' wish has already come true as students, faculty, staff and alumni have been snapping selfies with the bronze Wolfie. Be sure to visit and take your own selfie the next time you are on campus and tag *@stonybrook.edu* in your photos. ★

SPIRITED.
FUN.
INSPIRATIONAL.
ICONIC.

Above: President McCormick celebrates the unveiling with Wolfie.

WOLFIE'S JOURNEY FROM ARRIVAL TO INSTALLATION...

CELEBRATING THE 2024 40 UNDER FORTY

PHOTOGRAPHY *Kristy Leibowitz*

stonybrook.edu/magazine

As Stony Brook continues to make strides in advancing the future of education, research and medicine, so too are our exceptional young alumni, who have distinguished themselves as leaders in their communities. During Homecoming Week in October, SBU celebrated this group who has made significant strides early on in their careers, earning recognition for their achievements in healthcare, technology, public service, academia and environmental sciences, among other fields.

Our Seawolves have stepped up during public health crises through providing strategic counsel to the U.S. Food and Drug Administration during the COVID-19 pandemic, working as a respiratory specialist also during the pandemic and specializing in disaster response and recovery programs in the U.S. Senate Sergeant at Arms, Office of Security, Emergency Preparedness and Continuity.

From making sure our veterans get the resources they need and working in the New York State Assembly for senior citizens' rights to competing in the Olympics and raising money for non-profit organizations, to helping to develop climate-smart agriculture in Kenya, this year's class of honorees joins the ranks of alumni dedicated to helping their communities and addressing global issues. ★

Meet the 2024 class of *40 Under Forty* honorees (in alphabetical order):

THE HONOREES

Robert Africano '10
Optometrist, Area Doctor, North Carolina Primary Vision Care Associates
Nusrat Alam '06
CEO/Co-Founder/Judicial Delegate, I am Perspective
Amanda Alicea '10
Executive Director of Strategic Initiatives, SBU
Patrick Cantwell '12
Bullpen Catcher, Texas Rangers
Timothy Cole, Esq. '05
Procurement Attorney, Brookhaven National Laboratory
Jonathan Conyers '17
Respiratory Therapist, NYU Langone Medical Center
Amruta Desai '08, MPH '09
Anesthesiologist, Interventional Pain Physician, Stony Brook Medicine
Nicholas Figueroa '11, MA '13
Lecturer of Spanish, Columbia University
Andrea Gallego '08
Global Managing Director of Go-To-Market Incubation, Google
Matthew Henninger '16
Staff Psychologist, Phoenix Veterans Affairs Health Care System
Alexandria Imperato '10, MS '12, MD '18
Doctor, Internal Medicine, NYU
William James '09
Documentary reporter/producer, KUOW, Seattle NPR station
Travis Jankowski
Baseball player, Texas Rangers
Catherine Kavanagh MD '09
Pediatric Nephrologist, Assistant Professor of Pediatrics, CUMC
Russell Keogler MA '10, MPH '11, MBA '13
Vice President of Operations, HMR Veterans Services Inc.
Gregory Kirschen MD '17, PhD '20
Maternal-Fetal Medicine Fellow, Hospital of University of Pennsylvania
Adam Kulway '06
Facilities Management Bureau Chief, Arlington County Government
Kristi Ladowski MPH '11
Associate Director of Injury Prevention and Community Program Integration, SBU Hospital
Acacia Leakey '17, MS '18
Technical Initiatives Manager, Turkana Basin Institute
Daniel Lloyd MA '19
Founder & President, Minority Millennials
Joshua Lory '09
Co-Founder & CEO, YourOwn
Rubina Madni, Esq. '05
Director, Corporate Counsel, Otsuka America Pharmaceutical, Inc
Donna-Lee Mahabeer '06, MSW '08
Director, Diversity, Intercultural & Community Engagement, SBU
Alefiyah Malbari, MD '09
Chief of Ambulatory Pediatrics, University of Texas at Austin
Christopher Murray '10, MA '13
Vice President of Marketing, Island Federal Credit Union
Carla Neckles PhD '14
Senior Scientist, Arrakis Therapeutics
India Pagan '21
Basketball player; member of the 2020 and 2024 Puerto Rican Olympic teams
Marvin Parasram '10
Assistant Professor, New York University
James Pierre-Glaude '06, DPT '10
Assistant Dean for Diversity, Equity, Inclusion, & Belonging, School of Health Professions
Steven Raga '06, MA '08
Assemblyman, New York State Legislature
Aleef Rahman '09, MPH '11
Physician, New York State Department of Health & CDC National Foundation
Valerie Revolus '12
Psychiatric Mental Health Nurse Practitioner, Moving In New Directions Psychiatric
Sofia Reyes '08, MS '12
Director, Simulation Education & Clinical Skills Laboratory, Stony Brook Medicine
Jillian Ringhauser '14
U.S. Senate Sergeant at Arms, Office of Security, Emergency Preparedness, and Continuity
Kalin Sims '15
Senior Manager, Customer Success, Storyblocks
Cassandra Skolnick '22
President and Chief Executive Officer of Veris Media Group LLC
Gozde Ustuner MS '17
Acting Department Chair/Professor, Farmingdale State College
Joseph Verardo '13, MA '15, MS '16
President, Young Education Professionals-NYC
Howard Wang, BS '09, MS '13, 'DDS '15, MBA '16
Dual specialist in endodontics & periodontics/ dental implants
Monique Watson '14
Strategy Fellow, College Board
Pedro Atzel Zapata '13, MA '14
Deputy Director, Program Implementation, NYC Department of Health and Mental Hygiene

Note: this listing only includes honorees' SBU degrees.

For more information on Stony Brook's 40 Under Forty program and to read the full biographies of our honorees, visit *stonybrook.edu/40underforty*.

Celebration of Excellence

Investiture ceremony honors 11 endowed faculty members and their donors

BY *Christine McGrath* / PHOTOGRAPHY *Isabel Epstein*

stonybrook.edu/magazine

President McCormick (center) with the 11 professors honored at the Investiture ceremony.

To attract the best and brightest students, provide exceptional healthcare and make new discoveries through innovative research at Stony Brook University, it's important to have the best faculty. The most critical tools for recruiting and retaining top talent are endowed professorships or chairs. Endowed positions are among the highest career distinctions bestowed upon university faculty, and they serve as a lasting tribute to the generous philanthropists who establish them

On October 25, SBU formally installed 11 endowed faculty members as part of Homecoming Week, bringing the total number of endowed faculty positions at SBU to 70. The ceremony, held at the Charles B. Wang Center Theatre, included addresses from Richard L. McCormick, interim president; Mónica Bugallo, vice provost for faculty and academic staff development; and keynote speaker Esther S. Takeuchi, the William and Jane Knapp Endowed Chair in Energy and the Environment and a SUNY Distinguished Professor.

"Thanks to our generous friends who have placed their trust in Stony Brook, we are able to recruit and retain the absolute best scholars," said McCormick. "The faculty we are honoring conduct research to address the world's most pressing challenges, attract the strongest students and fuel our unstoppable momentum."

All of the endowed faculty members — and their philanthropists — are equally passionate about their work, which ranges from physical and quantitative biology and the intersection of art and artificial intelligence to work in social justice and climate change research, as highlighted throughout the ceremony.

During the ceremony, each faculty member was awarded a medallion by the dean of their respective school. Philanthropists in attendance were also presented with a medal for their dedication and continued support of the university. The 11 endowed faculty come from across the university, including the College of Arts and Sciences, the College of Engineering and Applied Sciences, the Renaissance School of Medicine and the School of Marine and Atmospheric Sciences.

Henry and Marsha Laufer have established five endowed positions within the Louis and Beatrice Laufer Center for Physical and Quantitative Biology. Four of those endowed faculty members were included in the induction ceremony. "By joining the Laufer Center, I have been able to further accelerate and expand the scope of my research," said Ivet Bahar, the Louis and Beatrice Laufer Endowed Director and Chair in Physical and Quantitative Biology. "Thanks to the Laufers' generous support, we are generating new knowledge at the interface of biological and physical sciences; developing new computations tools that help elucidate the molecular bases of complex diseases, from cancer to infectious diseases to neurological disorders; and designing new modulators of function that will ultimately lead to better therapeutic strategies."

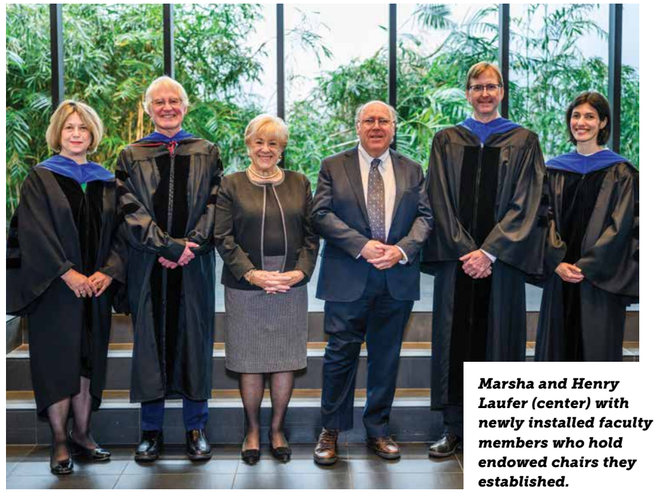
"Marsha and I are very proud of the work being done at the Laufer Center, said Henry Laufer. "In addition to the new knowledge being created, the faculty are helping to train the next generation of scientists that will lead future discoveries in academia and industry."

Among the philanthropists in attendance were Henry and Marsha Laufer, Nirmal and Augustina Mattoo and Jane Ross as well as members of the Knapp Swezey Foundation, including William Knapp '78, Michele and Dave Knapp, Danielle Knapp-SanGiovanni '20 and Allison Knapp, and an anonymous alumnus who established the Savitri Devi Bangaru Term Professor in Artificial Intelligence position.

Nirmal and Augustina Mattoo established the Nirmal K. and Augustina Mattoo Endowed Chair in Classical Indic Humanities in 2017. Their generosity has also allowed the Bishembarnath and Sheela Mattoo Center for India Studies to flourish and become nationally and internationally recognized as an academic and cultural center of excellence in India studies. "The study of India is a wonderful complement to one's education and strengthens cross-cultural understanding as the global economy and community continues to become ever more interdependent," said Nirmal Mattoo.

Over 30 years, the Knapp family has established several endowed positions, including the Knapp Swezey endowed chair in pediatric surgery. They have also supported programs with the Renaissance School of Medicine, SB Children's Hospital, including support for the pediatric emergency department expansion, and the College of Engineering and Applied Sciences. Knapp family members also contribute their time by participating on the SB Foundation Board, the Medicine Advisory Board, the Children's Hospital Advancement Council, the Women's Leadership Council and the Alumni Association.

To watch videos about the faculty, visit *stonybrook.edu/endowedfaculty*.



Marsha and Henry Laufer (center) with newly installed faculty members who hold endowed chairs they established.

THE 2024 ENDOWED FACULTY

Ivet Bahar
Louis and Beatrice Laufer Endowed Director and Chair in Physical and Quantitative Biology

Michael Bender
John L. Hennessy Endowed Professor in Computer Science

Lina Carlini
Laufer Family Endowed Professor of Physical and Quantitative Biology

Manisha Desai
Empowerment Charitable Trust Endowed Professor in Global Citizenship

Ken A. Dill
Laufer Family Endowed Chair of Physical and Quantitative Biology

Stephanie Dinkins
Yayoi Kusama Endowed Professor of Art

Petar Djuric
Savitri Devi Bangaru Term Professor in Artificial Intelligence

Christopher J. Gobler
Endowed Chair of Coastal Ecology and Conservation

Kenneth Gow, MD
Knapp Swezey Endowed Chair in Pediatric Surgery

Carlos Simmerling
Marsha Laufer Endowed Professor of Physical and Quantitative Biology

Sthaneshwar Timalsina
Nirmal K. and Augustina Mattoo Endowed Chair in Classical Indic Humanities

"Marsha and I are very proud of the work being done at the Laufer Center…the faculty are helping to train the next generation of scientists."
— HENRY LAUFER

William Knapp, Danielle Knapp-SanGiovanni, Allison Knapp, Michele and Dave Knapp

Right: Nimal and Augustina Mattoo (front row, center right) celebrating the investiture of Sthaneshwar Timalsina with friends.

Once a Seawolf...

For Kate Valerio MS '04, her Stony Brook story continues, even in retirement

BY *Rob Emproto*

stonybrook.edu/magazine

Photo by Juliana Thomas

Kate Valerio in one of her many Stony Brook homes, the WUSB-FM studio.

"There's a magic to this place and a power to change the world for the better. They'll never get rid of me."
—KATE VALERIO MS '04

If you visit Kathleen (Kate) Valerio's page on job site LinkedIn, the very first line reads, "RETIRED and doing what I want to do!"

For many retirees, that means sleeping late or focusing on a hobby. For Valerio, a former member of SBU's Division of Student Affairs, it means spending her days as a mentor with the International Friends and Family Program; as a community volunteer with the Long Island Music and Entertainment Hall of Fame, the New York Blood Center and Pedals for Progress; and as an ambassador for the National Commission for Health Education Credentialing. And if that's not enough, did you know she's also a radio host of two shows on WUSB, Stony Brook's FM station?

"I'm a 'failed retiree,'" said Valerio, a title bestowed upon her by a guest during a recent WUSB interview. As for her retirement from her 20-plus-year career at the university, Valerio is as busy — if not busier — than ever. The nine-to-five work is off her table, but the work of helping others in the Stony Brook community goes on.

A Seawolf Is Born

When Valerio thinks of how long her relationship with Stony Brook goes back, she doesn't need to look any further than her son, Tommy. It was in 1996 when a five months' pregnant Valerio went into early labor. Suddenly, the place that had previously been "that big building over there" — a reference to the two Health Sciences towers that dominate the landscape — became a source of dire emergency care.

"Stony Brook University Hospital not only saved me; it also saved my son, who is now a thriving 28-year-old," said Valerio. "That's where my love for Stony Brook started."

Little did she know that that happy ending would signal the beginning of a Seawolf story that continues to this day.

Two years after the birth of her son, Valerio decided to finish her college degree, and SBU's Health Sciences towers called to her again, this time via an internship while a student with Empire State College. This experience inspired her to pursue a master's in health technology and management at SBU, earning that degree in 2004.

In what would become a recurring theme in Valerio's career, one Stony Brook chapter came to an end, and another was waiting to be written. This time, as she pursued her master's degree, the opportunity for an internship with Student Health Services (SHS) arose in 2000.

At that time, the director of SHS saw Valerio as a good fit to support the CHOICE (Choosing Healthy Options in the College Environment) peer education program. As a graduate intern, and then as a hired health counselor, Valerio co-instructed CHOICE. "The experience just blew my mind," she said. "I fell in love with the power of experiential learning and peer-to-peer education."

Pulling inspiration from a tragedy she experienced working in the airline industry in her early 20s — when a friend and coworker committed suicide upon receiving an HIV diagnosis — Valerio's internship experience helped her identify the need for a peer program to focus on college students' physical and mental well-being.

"That tragic experience changed me forever and inspired my future involvement in suicide risk and prevention," she said. "Coupled with my experiences co-instructing CHOICE, it supported my interest in developing a mental health-focused, peer education program."

With professional support from SBU's Counseling Center, Valerio co-created the Chill Peer Education program. In 2006, Chill enrolled its first 22 students in a two-semester internship focusing on study and outreach linked to peer mental health and wellness. During her 20-plus years as an instructor, Valerio estimates that more than 1,000 students successfully completed training.

Continuing a partnership between SBU and the New York Blood Center (NYBC) that began in 2000, Valerio still works to host community blood drives and encourage students to donate blood. In 2008, she was asked to accept the role of advisor to the Student Blood Drive Committee. Her first — and second — response was "no!"

"I really didn't have the time to do it, I was very involved in other things," she said. However, as the group required an advisor to remain active, she reluctantly agreed. "The students were so dedicated and I totally bought into it."

These blood drives have averaged 1,500 blood donations each academic year. On February 22, 2024, Stony Brook and NYBC celebrated an impressive milestone: 100,000 lives saved through 33,334 blood donations from Stony Brook students (each donation helps three people).

On the Radio

Though Valerio didn't know it at the time, her Stony Brook career path would still have some curves left. In 2010, she was invited to be a guest on a WUSB radio show called "Taking Care of Yourself." In 2012, the show's creator invited her to join the weekly broadcast as co-host. When he retired in 2019, Valerio took over as host until the COVID pandemic, when she retired.

Despite being retired, Valerio's passion for causes and the inspiration she bestowed continues. Valerio encouraged Allison Van Cott, a graduate student in the School of Social Welfare, to take over her radio time slot. Van Cott created a new show — "Play It Forward" — dedicated to opioid awareness.

"I have always called her 'The Great Kate,'" said Van Cott. "I'll always be grateful to her for her guidance and mentorship as a student at SBU. I loved being a Chill intern, and I learned so much from that work. I fell in love with WUSB because of Kate, and her encouragement and support with "Play It Forward" is something I will always be thankful for."

Looking back, Valerio said one of the things she's most proud of is passing her passion on to students like Van Cott.

"I love the magic of a student who comes in and wants to make the world a better place, but just hasn't been given an opportunity," she said. "I've got a bucket full of things they can do, and they do. They're my heart and soul. I'm so appreciative for how much my students have taught me."

Listen to Kate Valerio on WUSB every other Thursday from 1 pm to 2 pm. Visit *wusb.fm* for the full schedule or to listen online.

Photo by John Griffin/Stony Brook University

Valerio with her father, Korean War Army veteran and Long Island State Veterans Home resident, Desmond Cooke, at the 2024 Memorial Wreath Ceremony.

Valerio with former Chill student Alexandria Imperato at her graduation from the School of Medicine.

Innovation Unleashed

Velchamy Sankarlingam MS '95 shares how his education and varied experience continue to shape his career

BY *Melinda Church*

stonybrook.edu/magazine

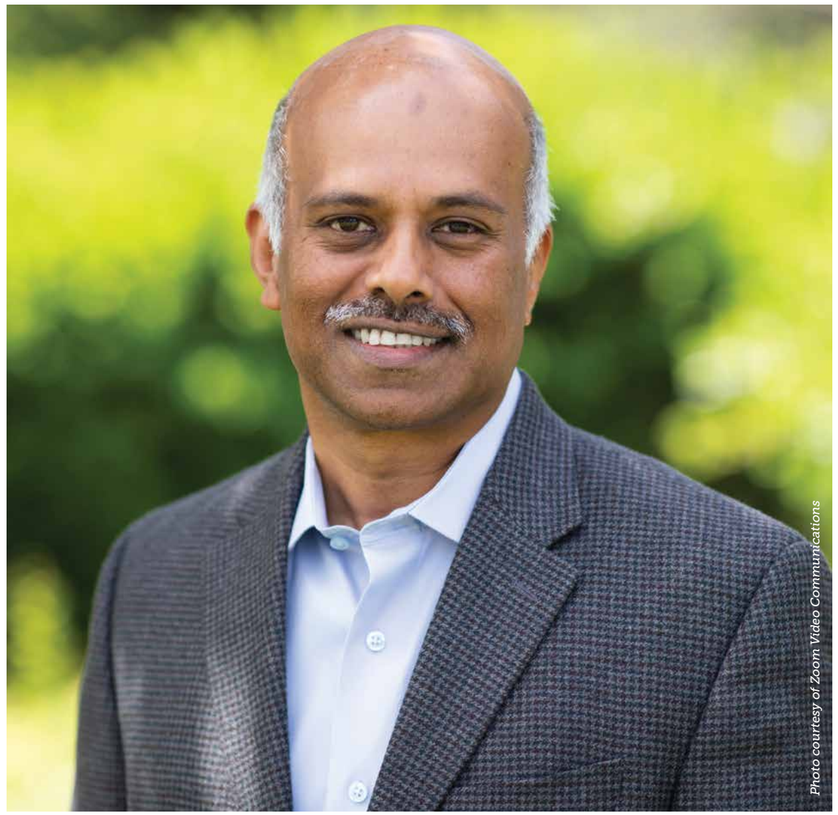


Photo courtesy of Zoom Video Communications

Below: Velchamy Sankarlingam credits the broad education he received at Stony Brook with helping him to succeed with the move into technology management.

Some advice for anyone who has a conversation scheduled with Velchamy Sankarlingam, MS '95: Come caffeinated and well-rested. Keeping up with him, his extraordinary career and his fast-working mind requires a lot. He's a broad thinker who talks about connecting and changing the world.

Velchamy is president of product and engineering for Zoom Video Communications Inc., a role he took on in July 2020. Let's return for a moment to those dark, socially isolated days to understand the context in which he operates — and the scale of the challenges he seeks out.

In spring 2020, several years into a successful career at VMware, where he was senior vice president of cloud services development and operations, Velchamy got a call from one of his best friends from their days as Webex colleagues. Zoom CEO Eric S. Yuan was asking if he would join him at the company which, in a matter of weeks in early 2020, underwent an astounding amount of growth in meeting participants.

It was a challenge too good to refuse and was an opportunity to work with Yuan again. Velchamy's experience and education made him precisely the right person for the job. He combines deep technical chops with management expertise — strategic thinking honed through his time earning a master's degree in business and policy from Stony Brook University.

An Agent of Opportunity

At Stony Brook, Velchamy found the right place, at the right time, with the right educational approach. He and his wife, Vidya, moved to Long Island in 1993, shortly after they were married. They found an apartment close to Stony Brook and began settling in. As a software engineer working at Standard Microsystems on Long Island, he was plenty busy, but he was driven to do more.

By fall, he'd started his master's program. "I came from a strong technical background," Velchamy said. "I had an electrical engineering bachelor's degree and a master's in computer science, but I always wanted to earn a management degree."

Stony Brook's master's program was designed for working professionals, and its flexibility and proximity to work and home made the effort doable. At the time, the program was part of the Harriman School for Management and Policy. Today, the College of Business, which was founded in 2004, continues that tradition and offers a range of degrees for working professionals.

Velchamy took advantage of Stony Brook's breadth, enrolling in courses in math and writing along with business. "I learned so much from all of my classes because I was a purely technical person before that." That broad education, he said, enabled him to move into technology management.

Photo provided by Velchamy Sankarlingam

Velchamy and Vidya Sankarlingam at a company Christmas party during their time on Long Island in the early 1990s.

A Lasting Impact

After more than 20 years on the West Coast, Velchamy and Vidya visited Stony Brook a few years ago. Their oldest daughter, who was born at Good Samaritan Hospital during their last few months at Stony Brook, was entering Columbia University to study law. "We drove to Stony Brook," said Vidya. "We showed her where she was born, the hospital, the place where we lived, and the university."

For Vidya, her time living on Long Island was especially formative; it was her first home in the United States. Coming from the tropics of southern India, the memory of shockingly cold winters sticks with her still. She took a few classes at Stony Brook and spent time with a cousin in Connecticut. "It was a very nice, small community," she said about Stony Brook. "In the summer, Velchamy and I would pick cherries and tomatoes. We really liked living there."

Despite their decades away, their interest in the university remains strong. "I follow the university closely," said Velchamy. "Stony Brook has made a lot of progress and is much more prominent nationally since I graduated." Among the areas of excellence he cites are quantum physics and significant investments in research. "I believe Stony Brook has found the right balance as a public university that is very affordable while also conducting so much high-end research."

Eyes Ever Trained on the Future

Velchamy's view of the future of work highlights his global perspective, deep technical expertise and a management style that is all about enabling others. His team oversees Zoom's products, development and technology — a large portfolio that is just right for a man who embraces problem-solving and creating something new.

As artificial intelligence (AI) becomes an increasingly important part of how the world works, Velchamy is committed to seeing that no one is left behind, that an AI divide doesn't happen on his watch at Zoom. "AI will touch every part of society," he explained. "It's going to be much bigger than the internet revolution, and it's going to be much faster as well."

He wholeheartedly endorses Zoom's corporate stance on ensuring AI is available to all of its subscribers, with functions that are included in the basic fees. He and his team have introduced AI-enabled features such as meeting transcriptions and summaries and the ability to see tasks assigned to individuals.

Velchamy's approach to leadership centers on empowering others and focusing on business goals. He explained: "The combination of the technical background and the management background allows me to know what to do, when. When does the team need me, and when do they need me to step out of their way and empower them? The goal is making sure I'm not needed."

> "Stony Brook made a big difference for me. The faculty were very good, very knowledgeable and approachable. They understood we were part-time students and helped us through whatever we needed."
>
> —VELCHAMY SANKARLINGAM, MS '95
> President of Product and Engineering for Zoom Video Communications Inc.

He favors one-year career plans for reasons that are both practical and values-driven. "Our industry is evolving so quickly, and it keeps me focused. But more, it's about long-term career plans becoming political — like building and protecting a fiefdom, which I'm not interested in."

When asked about advice he might offer to new Stony Brook alumni, Velchamy's response reflects the realities of increasing globalization and porous edges between work and life. "It's going to be very, very difficult to find a work-life balance," he said. "So whatever direction you choose needs to be a personal passion that you have a talent for. If you're good at it, go for it."

Melinda Church specializes in philanthropy, science and health writing. She is based in Columbus, Ohio.

Q&A

William Wertheim

stonybrook.edu/magazine

Photo by Isabel Epstein

William Wertheim, MD, MBA, recently named Executive Vice President of Stony Brook Medicine (SBM), shares his excitement for the future and his vision for our academic health center.

TELL US ABOUT YOUR NEW ROLE.

It is both inspiring and incredibly humbling to lead SBM, knowing my own journey over my time here (28 years). Walking through the familiar halls, seeing colleagues I've worked with for years, and reflecting on how much we've accomplished together is remarkably gratifying. At the same time, I am so impressed with the people who have come to SBM through the years, drawn by our achievements and our potential, who bring fresh ideas. Hearing their perspective drives me to contemplate new ways of doing things.

What looks different is the broader lens I now have. Every decision we make must account not just for the immediate needs but also for how we manage ourselves as one health system; how we grow sustainably, innovate, and coordinate care and education opportunities across multiple sites. We also must continue to strive to incorporate the missions of research and education into the care of patients, to ensure that our patients now and for years to come receive the highest quality care.

WHAT ARE YOUR TOP PRIORITIES?

Since stepping into the role of EVP, my primary focus has been on fostering greater unity across all parts of our health system. A significant part of achieving this integration involves strengthening our governance structures. We've established committees that bring together leadership across different domains, which is a crucial step toward breaking down silos and enabling smoother decision-making processes, ultimately benefiting our entire community.

Increased collaboration with SBU's West Campus remains a key priority as well. I look forward to co-chairing a new faculty task force with Brenda Anderson, professor of integrative neuroscience, to explore avenues to deepen initiatives and collaboration across campuses.

WHAT ARE THE BIG CHALLENGES FACING HEALTHCARE TODAY?

A significant challenge is improving access to timely, high-quality care for all patients, especially as we face a growing senior population and national workforce shortages.

We are tackling these challenges from multiple angles. Recruitment and retention of healthcare professionals is a significant challenge across the country. In response, we've focused on flexibility that can attract and support top talent. And we are expanding access to care through both taking a fresh look at traditional in-person care, and virtual health initiatives, which reduce barriers like travel and wait times.

Programs such as the Center for Interprofessional Innovation provide health sciences students with opportunities to learn how to work together effectively across disciplines. Traditionally our education system did not focus on interprofessional work, but the demands of 21st century health care require new ways of teaching our students.

We must find ways to care for a rapidly expanding elderly population. Research at our Center for Healthy Aging is developing practical solutions that help maintain a sense of familiarity, connection and emotional well-being for older adults.

WHY IS SUPPORTING MEDICAL STUDENTS IMPORTANT TO YOU?

My wife and I married during medical school, so both of us have a keen sense of what medical debt means to early-career physicians. We both care deeply about the practice of medicine. Supporting the next generation of physicians is a cause close to our hearts.

Medical student debt is a significant challenge, and it discourages many talented individuals from pursuing careers in medicine. By helping reduce the financial burden for our students, we hope to empower future physicians to focus on their education and choose specialties that resonate with their personal and professional goals.