



#### **DEAN'S MESSAGE**

#### Kenneth Kaushansky, MD, MACP

Dean, Senior Vice President, Health Sciences Renaissance School of Medicine at Stony Brook University

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#### Dear Friends,

It is my favorite time of year again, commencement season. It's been a very busy year at Stony Brook Medicine, and I am happy to provide an update on all we have been doing to continue to achieve excellence.

In 2019, we will welcome 129 new physicians into the community of medicine, having successfully completed the rigorous Renaissance School of Medicine curriculum and passing all of their national board examinations. Their intellect, drive, mastery of the complex interaction between the art and the science of medicine, their humanity and their devotion to the principles of medicine have been truly inspiring. The Class of 2019, our 45th graduating class, is an outstanding and diverse group of nascent internists, surgeons, emergency medicine physicians, anesthesiologists, pediatricians, psychiatrists, and other generalists and specialists.

About one-third of our graduates are headed toward careers in primary care disciplines — general internal medicine, pediatrics and family medicine, although some of these physicians will ultimately specialize — with

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#### UPDATE FROM THE OFFICE OF ACADEMIC AND FACULTY AFFAIRS

#### Latha Chandran, MD, MPH

Vice Dean, Academic and Faculty Affairs, Renaissance School of Medicine at Stony Brook University Miriam and David Donoho Distinguished Teaching Professor SUNY Distinguished Teaching Professor Founding Director, Donoho Academy of Clinical and Educational Scholars



Congratulations to the Class of 2019 on their graduation from the Renaissance School of Medicine at Stony Brook University. They have done very well academically, continuing to excel in all national standardized exams, and successfully matched into very competitive residency programs. We know that many of them end up as chief residents and future leaders in medicine. Last summer, we started an accelerated program to complete the MD degree in three years. **The 3YMD program,** aligned with our own residency programs, demands a higher academic rigor than the standard LEARN curriculum. We are very excited about this program that offers considerable financial benefits to participants and allows physicians to enter the workforce earlier.

I am pleased to mention several exciting happenings at our school. The naming of the school in recognition of the numerous generous contributions from Renaissance Technologies is the first one. With their philanthropy, the families affiliated with Renaissance Technologies have transformed the research, educational and clinical possibilities at the **Renaissance School of Medicine.** The opening of two brand

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Renaissance School of Medicine Stony Brook University

#### Dean's Message continued from cover

the remainder entering specialty residencies. About one-half of our graduates will stay in New York for their residency training, matching at Cornell, Columbia, NYU and Mount Sinai - and because of our retention efforts, 16 will remain at Stony Brook Medicine, which is great for the home team! Those graduates who sought out training in 21 other states also did guite well, with addresses next year that include Massachusetts General Hospital, Yale, Johns Hopkins, Stanford, UCSF, UCLA and UCSD, among others. Over 36 percent of our graduates are heading to the most prestigious residencies in the country, which I define as the top 20 residencies in each field. And if history is any indication, most will be viewed as the top interns and residents in their classes. and if history is a guide, many will remain in academic medicine, either at Stony Brook Medicine or in other academic positions, as our school ranks 95th percentile in the nation in this realm.

Research funding has again risen within the Renaissance School of Medicine this year compared to last, mostly in our focus areas of cancer, immunology, neurosciences and biomedical informatics. We have created a Stony Brook Institute for Engineering-Driven Medicine, which held its first brainstorming session in December 2016 and second in early May 2017, and funded several pilot grants again this year. It will build on current strengths and focus on cardiology and cardiovascular disorders, cancer medicine, neurosciences, and digital and wireless medical device development. And, we are in the design phase of an approximately 50,000-square-foot building on the Research and Development Campus of the University, the IDiME building (Institute for Discovery and Innovation in Medicine and Engineering), which will house many innovative engineeringdriven medicine programs.

We have also advanced our historic affiliation agreement with the Icahn School of Medicine at Mount Sinai (ISMMS) to partner in research, academic and clinical endeavors. On the research side, we renewed our pilot funding program, which supports six new joint SBM/ISMMS projects. The educational affiliation with Mount Sinai will include Medical, Nursing, Health Technology and Social Welfare student rotations, interinstitutional graduate student thesis committees and experiential learning sites.

On the educational front, we are now nearly five years into our LEARN curriculum, and by all accounts, our audacious goals are being accomplished. This year we launched a threeyear medical school curriculum for a very select number of students in the matriculating class of 2019, and are evaluating adding additional students to the cohort from our first-year class. Our students are smarter, more experienced and more accomplished at matriculation than ever before, and the number of applicants who want to come to the Renaissance School of Medicine continues to be robust: more than 5,000 applicants this year! And, based on our curriculum and a myriad of other parameters, at the time of this writing in early April, we are anticipating a successful Liaison Committee for Medical Education (LCME) reaccreditation visit, our once-every-eight-years "show and tell."

#### Update from the Office of Academic and Faculty Affairs continued from cover

new buildings: the Medical and Research Translation (MART) building and the adjacent Hospital Pavilion allows for new educational facilities for **team-based learning** and interactive small group activities for our medical students. Our educational spaces on Level 2 of the Health Sciences Tower have been renovated and the **Health Sciences Library** has been reconfigured to allow for collaborative and year-round learning. Our state-of-the-art **Clinical Skills Center** is expanding to allow more training opportunities in simulated environments.

And most importantly, the medical school has just successfully completed its once-in-eight-

years accreditation process conducted by the **Liaison Committee on Medical Education.** Thanks to the dedicated efforts of our faculty, students and administration, the site visitors were pleased with our curricular and organizational efforts at excellence, and the medical school continues with **full accreditation** for our MD degree granting program. Congratulations to all involved!

So there is a lot to be proud of at Renaissance School of Medicine. We could not have done it without the energy and the commitment of our wonderful students and our teaching faculty, who are generous with their time and effort in all we try to do. Thank you all. • Again this year, we witnessed significant growth in our clinical impact. Our 120,000-square-foot multidisciplinary clinic in Commack, known as Advanced Specialty Care, includes extended-hour primary care and over 30 specialties and subspecialties. Stony Brook University Hospital has been as busy as ever, with recent census numbers hitting all-time highs, and our total number of patient encounters across our healthcare system exceeding one million this year. Our operations at Stony Brook Southampton Hospital have been a model, expanding the range of services offered to patients on the South Fork of Long Island, including having successfully performed more than 500 cardiac catheterizations in the first cardiac catheterization laboratory in eastern Suffolk County. And, we will continue our move this year into the remainder of the nearly 500,000 square feet of research, educational and clinical space that make up the MART (Medical and Research Translation) building and Hospital Pavilion/Stony Brook Children's Hospital.

In sum, there is much to celebrate here at Stony Brook Medicine. We continue to make progress on all our missions, research, education, clinical and community outreach, and the impact of all the members of Stony Brook Medicine continues to grow. I hope you all take great pride in our accomplishments. I certainly do.



VIDYA, the name chosen for this newsletter, is a Sanskrit word meaning knowledge.

Since the newsletter is devoted to covering the educational aspects of Renaissance School of Medicine at Stony Brook University, this name is especially meaningful. Part of a student's education during medical school is the pursuit of knowledge and learning.

Published twice a year in May and August, VIDYA is available as a printed piece and can be viewed online.

### **NEWS FROM ALUMNI RELATIONS**

By Mary Hoffmann, Assistant Director, Alumni Relations, Stony Brook Health Sciences Schools

This has been an exciting year for the Renaissance School of Medicine at Stony Brook University. Members of the Alumni Board voted unanimously to support the name change in recognition of the generosity of the families of Renaissance Technologies. Interested in getting involved? Please contact Mary Hoffmann at mary.hoffmann@stonybrook.edu.



The 23-member Alumni Board's mission is to support the students during their demanding journey through medical school. With the generosity of alumni across the country, each incoming student receives a new 3M Littmann® Cardiology IV™ stethoscope.



Alumni donors and students at the Scholarship Celebration.



The Class of '83 at their 35th anniversary reunion.



This year, many of the graduating students are giving back by making a \$20.19 donation to help support future students. Alumni continue to reconnect with their alma mater by providing both moral and financial support.



In January, an Alumni/Student Networking Fun Family Night Out was held to cheer on the Seawolves.



With the biggest turnout yet, the alumni and residents provided career advice to the students.



From left, Koeun Choi, now Class of 2020, and Jaydon Kiernan, Class of 2019, received the David E. Rogers Student Fellowship Award in the summer of 2016 and presented their research at "The Medical and Dental Student Forum" hosted by The New York Academy of Medicine on August 18, 2016. Also pictured are Stony Brook medical students Lee Hakami, Class of 2019, and Paul Castle, Class of 2019, who worked on the project.

The students who obtained summer research awards felt that they benefited tremendously from the experience and provided the following comments:

- "The David E. Rogers Student Fellowship Award from The New York Academy of Medicine was an incredible educational experience that pushed me both intellectually and personally."
- "My peers and I got to see firsthand what one example of 'low-resource community' meant; I was humbled by how much I had to learn from my local colleagues and study participants. I also received much benefit from presenting my research the following fall, and learning from the other research presentations. I'd recommend the experience to any medical student looking for research funding."
- "The student forum at NYAM was also a valuable experience for us. I was glad that we were able to share our preliminary results and to meet with other researchers who share the same interests."

### SUMMER RESEARCH FELLOWSHIP AWARDS

By Cordia Beverley, MD, Assistant Dean for Community Health Policy; Clinical Associate Professor, Department of Family, Population and Preventive Medicine



The New York Academy of Medicine (the Academy) is a health policy and advocacy organization founded in 1847 by a group of leading New York metropolitan area physicians as a voice for the medical

profession in medical practice and public health reform. Today, the Academy has over 3,000 fellows dedicated to maintaining and improving health. Each year, The New York Academy of Medicine Fellowship Awards contributes more than \$400,000 in grants and fellowships to medical students, clinicians and researchers to support the advancement of healthcare studies.

The Academy's student grants and fellowships allow medical students the opportunity to gain direct, hands-on experience in a high-quality research environment, as well as exposure to health policy making and leadership development.

The David E. Rogers Student Fellowship Award is meant to enrich the educational experiences of students through projects that couple medicine with the needs of underserved or disadvantaged patients or populations. The Ferdinand C. Valentine Medical Student Research Grants are awarded to medical students to support research in urology. Medical students across the country compete for these \$4,000 awards by submitting a planned research project to be completed between the first and second years of medical school. The awardees are selected by a committee of fellows of the Academy. The students are then required to present their research to a committee made up of the president and invited fellows of the Academy.

Since 2016, our students have been awarded these competitive fellowship awards annually for the following global and local research projects:

#### Class 2019:

#### Jaydon Kiernan and Koeun Choi

Stony Brook University Global Health Institute Identifying the Cultural Practices That Perpetuate Cysticercosis in Infandiana, Madagascar

#### Class 2020:

#### Emile Redwood and Annabelle Jones

David E. Rogers Student Fellowship Award Bridging the Gap: Assessing the Efficacy of Prototype Tuberculosis Therapy Technologies in Rural Madagascar

#### Class 2021:

#### Ariel Yang and Nahid Bakhtari

David E. Rogers Student Fellowship Award Evaluating an Artificial Neural Network Smartphone Application for Point-of-Care Diagnosis of Soil-Transmitted Helminthiases in Madagascar

#### Lai Yu Tsang and Christine Pando

David E. Rogers Student Fellowship Award A Social Network Analysis to TB Transmission and Redefining TB Screening Through the Assessment of Indoor Air Pollution in Remote Communities Research Conducted at Centre ValBio, U.S. Headquarters, Madagascar

#### Sina Mehraban Far

The Ferdinand C. Valentine Medical Student Research Grants in Urology A Randomized Controlled Trial Comparing the Efficacy of a Condensed 6-Week Protocol to the Standard 12-Week Protocol of Percutaneous Tibial Nerve Stimulation (PTNS) in the Treatment of Overactive Bladder

#### Class 2022:

#### Simrat Dhaliwal

David E. Rogers Student Fellowship Award Barriers to Screening of Hepatitis B Infection in a Community-Based Screen of Asian Populations on Long Island

#### Eve Ameen

David E. Rogers Student Fellowship Award Evaluating the Efficacy of Smartphone Pointof-Care Diagnosis by Training Healthcare Workers for Soil-Transmitted Helminthiasis in the Rain Forest of Peru •

### **MATCH DAY CELEBRATION 2019**



This year's Match Day Celebration was held on Friday, March 15, in the Health Sciences Galleria. There was another successful Match this year, with 98 percent of the class matching to a residency program.



Thirty-two percent of students matched to primary care residencies (medicine, pediatrics, family medicine). Other students matched in other specialties, such as anesthesiology, dermatology, emergency medicine, neurological surgery, neurology, OB/GYN, ophthalmology, orthopaedic surgery, otolaryngology, pathology, physical medicine and rehabilitation, plastic surgery, psychiatry and child psychiatry, radiology (diagnostic and interventional), surgery, urology and vascular surgery.

A record 36 percent of students matched to one of the top 20-ranked residency programs in the country. Congratulations to the Class of 2019! •











### **MATCH DAY CELEBRATION 2019**

SPECIALTY #	STUDENTS	INSTITUTION NAME
Anesthesiology	10	Boston University Medical Center, Cedars-Sinai Medical Center, Icahn School of Medicine St. Luke's-Roosevelt, Montefiore Medical Center/Einstein, New York Presbyterian Hospital- Columbia University Medical Center, St. Elizabeth's Medical Center, Stony Brook Medicine, University of Kentucky Medical Center, Yale-New Haven Hospital
Dermatology	2	SUNY Downstate Medical Center
Emergency Medicine	17	Florida Atlantic University-Schmidt College of Medicine, Icahn School of Medicine at Mount Sinai, Icahn School of Medicine St. Luke's-Roosevelt, Jackson Memorial Hospital, Morristown Memorial Hospital, Stony Brook Medicine, University of Arizona College of Medicine at Tucson University at Connecticut School of Medicine, University of Southern California, Zucker Schoo of Medicine-Northwell Southside Hospital, Montefiore Medical Center/Einstein
Family Medicine	6	Kaiser Permanente-Woodland Hills, South Nassau Communities Hospital, University of Connecticut School of Medicine, Ventura County Medical Center, Institute for Family Health
General Surgery	4	Hospital of the University of Pennsylvania, Rutgers-New Jersey Medical School, Thomas Jefferson University, University of Massachusetts
Internal Medicine	24	Hospital of the University of Pennsylvania, NYU School of Medicine, Icahn School of Medicine at Mount Sinai, Johns Hopkins, Kaiser Permanente-Oakland, Loma Linda University, Montefiore Medical Center/Einstein, New York Presbyterian/Queens, New York Presbyterian Hospital-Weill Cornell Medical Center, NYU Winthrop Hospital, Scripps Clinic/Green Hospital, Stony Brook Medicine, Thomas Jefferson University, University of Cincinnati Medical Center, University of Massachusetts Medical School, UC San Diego Medical Center, Yale-New Haven Hospital, Zucker School of Medicine-Northwell NS/LIJ, Westchester Medical Center
Neurological Surgery	1	Baylor College of Medicine-Houston
Neurology	5	Beth Israel Deaconess Medical Center, Icahn School of Medicine at Mount Sinai, New York Presbyterian Hospital-Columbia University Medical Center, Stanford University Programs, Yale-New Haven Hospital
Obstetrics-Gynecology	2	Montefiore Medical Center/Einstein, NYU Winthrop Hospital
Ophthalmology	2	Rutgers-New Jersey Medical School, Vanderbilt University
Orthopaedic Surgery	4	Boston University Medical Center, Icahn School of Medicine at Mount Sinai, Stony Brook Medicine, UC Irvine Medical Center
Otolaryngology	1	Yale-New Haven Hospital
Pathology	3	New York Presbyterian Hospital-Columbia University Medical Center, Stony Brook Medicine, UC San Francisco
Pediatrics	10	Children's Hospital-Los Angeles, Icahn School of Medicine at Mount Sinai, Nicklaus Children's Hospital-Miami, Northwestern McGaw/Lurie Children's, New York Presbyterian Hospital-Weill Cornell Medical Center, Tufts Medical Center, University of Colorado School of Medicine, UC San Francisco, University of Chicago Medical Center
Physical Medicine and Rehabili	itation 2	Montefiore Medical Center/Einstein, NYU School of Medicine
Plastic Surgery	3	Montefiore Medical Center/Einstein, Rutgers-New Jersey Medical School, University of Virginia
Psychiatry	4	Harvard South Shore, Montefiore Medical Center/Einstein, University of Massachusetts Medical School, University of Utah Affiliate Hospitals
Radiology	9	Albert Einstein Medical Center, Boston University Medical Center, Icahn School of Medicine at Mount Sinai, Icahn School of Medicine St. Luke's-Roosevelt, Massachusetts General Hospital, Thomas Jefferson University, UCLA Medical Center, Zucker School of Medicine- Northwell Lenox Hill Hospital Zucker School of Medicine-Northwell NS/LIJ
Urology	4	Albany Medical College, Rutgers-New Jersey Medical School, Stony Brook Medicine
Vascular Surgery	2	University of Arizona College of Medicine at Tucson, University of Arkansas College of Medicine-Little Rock

### **MY MATCH DAY EXPERIENCE**

#### By Ali Syed, Class of 2019



"I hate the cold." As someone who has been self-diagnosed with seasonal affective disorder, these four words shaped my four years of medical school. It has been no secret that for the last four years, I have been

dying to go somewhere warm for residency. Do not get me wrong: Snow is beautiful ... on Google images. But in real life, it's miserable.

Humor aside, I've spent most of my entire life in Suffolk County, New York. I went to Patchogue-Medford High School, continued at Stony Brook University and stayed for medical school. I have lived in my parents' home my entire life. Heck, I have never cooked a meal. For most people, Match Day is the day they find out where they are going. For me, it was IF I was even going. There was a fear that I would be a Suffolk County resident my entire life.

The process itself is grueling. I was told by my advisors that since I had spent my entire life in New York, it would be more difficult to relocate to another state, as many out-ofstate programs would view me as a casual applicant.

I ended up doing three two-week rotations in Florida to send a message that a New Yorker like me was desperate to move to the Sunshine State. One place I rotated at, I fell in love with: Florida Atlantic University. The culture and work-life balance were amazing. Not to mention, the hospital was a walk away from the beach. As I finished my two-week rotation, I knew I was going to rank this place first. I wanted this place to be home for the next three years. Beautiful beaches, no state income tax and more beautiful beaches. What more could I ask for?

The typical applicant submits applications in September and interviews from November through January. The final rank list submission is due in mid-February. Then, you just wait three weeks till "Match Day," which for the Class of 2019, fell on March 15, the ldes of March.

For me, the timeline between rank list submission and Match Day was surreal. Everyone knows their fate is decided, but it is the anticipation that drives us nuts. The worst part is explaining this process to nonmedical friends and family.

Friend: "What are you up to?"

**Me:** "Just applying for residency and going on interviews."

**Friend:** "Nice. Did you get any acceptances yet?"

Me: "Yeah ... it doesn't work like that. It's this process where you apply to X amount of programs; then Y programs decide to interview you. Then you have to rank those programs. And the programs have to rank all the people they interviewed. Then some computer runs a program where they take every applicant's rank list into consideration and match the students at one place and you are stuck where you match. You cannot switch out."

**Friend:** "That sounds horrible. Good luck with that."

Me: "Thanks."

Now I will admit, even though this sounds horrible, it's actually one of the few things in the whole process that is efficient and fair. Yet, the buildup and stress-inducing anticipation isn't. Apparently, this whole algorithm runs within a day. But the people behind this madness make you wait a month. That is like using a dating app that matches you to a spouse, but decides to tell you a month later in a public ceremony, in front of all your friends and family. Just give me my results tomorrow!

As you can tell, Match Day is like nothing else, as no other field announces its job offers in such a public manner. Yet, at the end of the day, it's a memorable occasion, because for the past four years, this is what we were working for. To think that four years of hard work culminates into an opening of an envelope to find out where you will spend the next several years is horrifying.

The night before Match Day, I mentally prepared scenarios of what might happen. Would I cry on the spot? Or would I just walk away? Wait, what if I match into one of my top spots, and it is one of my friends who do not match where they want? Thousands of thoughts like this were racing through my mind.

Finally, it was Match Day. Everyone looked their best. Loved ones surrounded each and every student. Cameras flashed like we were on the red carpet. Happiness and pride filled the room, but the silent anxiety was still there. We all felt it.

I was handed my envelope. Part of me wanted to run off and open it in the bathroom. Part of me didn't even want to open it. As the countdown began, I zoned out. When it ended, I paused. I listened to others scream and shout. I just wanted to soak everything in. I opened my envelope a good 10 seconds after the countdown ended. I slowly pulled the paper out and opened it. I saw the name "Schmidt." | panicked. | never ranked any place called Schmidt. However, a splitsecond letter, I saw "FAU Schmidt COM. " FAU being Florida Atlantic University. I matched at my top choice and was thrilled.

Yet, the excitement didn't soak in until the weekend. I was lying down, going through Google images of Boca Raton (yes, I Google images a lot). For the first time, in a long while, I was genuinely happy. I was going to be somewhere I wanted to be. Not somewhere where I had to be. I smiled. Finally, this process is over. I can pull a LeBron James and say "I am taking my talents to South Beach." Beautiful beaches, no state income tax and more beautiful beaches. What more could I ask for? •

### SCHOLARLY CONCENTRATIONS PROGRAM ANNUAL RESEARCH DAY • MAY 2019

This year's Scholarly Concentrations Program Annual Research Day was held on Thursday, May 2, in the Health Sciences Tower. This annual event kicked off with oral presentations followed by a poster session. **CONGRATULATIONS** to the following students on their Scholarly Concentrations research projects — this is quite an accomplishment.

Student	Track	Project/Mentor:
Amanda Bader	Research	"Comparing Superior Versus Inferior Pedicle Reduction Mammoplasty: Evaluation of Clinical and Aesthetic Outcomes — A Single Surgeon's Experience Over 10 Years" <b>Mentor:</b> Duc Bui, MD
Ji Dong Bai	Research	"Keratin 17 as Negative Prognostic Marker for Endometrial Carcinoma" <b>Mentor:</b> Kenneth Shroyer, MD, PhD
Jonathan Barnett	Medical Education	"Are Medical Students Ready for the Ripples of Interprofessional Learning? A Cross-Sectional Analysis of Medical Students' Perception of Interprofessional Collaboration" <b>Mentors:</b> Nirvani Goolsarran, MD, and Wei-Hsin Lu, PhD
Carolyn Birbiglia	Research	"Does BMI Impact the Need to Modify 6-Mercaptopurine and Methotrexate Dosing During Maintenance Therapy for Pediatric Acute Lymphoblastic Leukemia Patients?" <b>Mentor:</b> Laura Hogan, MD
Christine Cahaney	Research	"Neurocognitive Effects of Chemotherapy in Pediatric Patients" <b>Mentors:</b> Robert Parker, MD; Laura Hogan, MD; and Rina Meyer, MD
Paul Castle	Global Health	<ol> <li>"Determining the Prevalence of Cysticercosis and Taeniasis in Rural Infandiana, Madagascar"</li> <li>"The Epidemiology of Soil Transmitted Helminth and Strongyloides stercoralis Infections in Remote Rural Villages of Ranomafana National Park, Madagascar"</li> <li>Mentor: Peter Small, MD</li> </ol>
Joshua Chang	Research	"Hormone Status Influence on Mild Traumatic Brain Injury Outcomes" <b>Mentor:</b> Anat Biegon, PhD
Justin Charles	Humanities	"Empathy Variation in General Practice: A Survey Among General Practitioners in Denmark" <b>Mentors:</b> Stephen Post, PhD, and Troels Kristensen, PhD
Alice Cheung	Research	"The Effect of Medicare and Medicaid on Wait Times for Female Pelvic Medicine and Reconstructive Surgery Providers" <b>Mentor:</b> Jason Kim, MD
John Cordero	Research	"Development of Bioengineered Vascular Grafts in vitro for Applications in Vascular and Reconstructive Surgeries" <b>Mentor:</b> Gurtej Singh, PhD, and Duc Bui, MD
Chris Du	Research	"Longitudinal Evaluation of New Overactive Bladder Patients: Are Patients Following Up and Utilizing Third Line Therapies?" <b>Mentor:</b> Jason Kim, MD
Erin Duffy	Research	"A Pilot Study Assessing the Spiritual, Emotional, Physical/Environmental, and Physiological Needs of Mechanically Ventilated Surgical Intensive Care Unit Patients via Eye Tracking Devices, Head Nodding, and Communication Boards" <b>Mentor:</b> Randeep Jawa, MD
Benjamin Fombonne	Research	"Evaluation of Treatment Outcomes and Regression of Pathologic Liver Disease in HCV-HIV Co-Infected Treated Individuals" Mentor: Jack Fuhrer, MD
Alec Friedman	Research	"Risk Factors for Pediatric Multiple Sclerosis" <b>Mentor:</b> Louis Manganas, MD, PhD



Timothy Friedmann	Research	"Comparison of Pulmonary Embolism Risk Stratification Tools in Their Ability to Predict Adverse Outcomes" <b>Mentor:</b> Adam Singer, MD
Jesse Frye	Research	"Impact of Inflammatory Cytokines on Mortality in Adult Patients Following Cardiac Arrest" <b>Mentor:</b> Jignesh Patel, MD
Michael Goodman	Medical Education	"Effectiveness of Radiology Educational Resources in a First Year Gross Anatomy Course" <b>Mentor:</b> Susan Larson, PhD
Lee Hakami	Global Health	<ol> <li>"Determining the Prevalence of Cysticercosis and Taeniasis in Rural Infandiana, Madagascar"</li> <li>"The Epidemiology of Soil Transmitted Helminth and Strongyloides stercoralis Infections in Remote Rural Villages of Ranomafana National Park, Madagascar"</li> <li>Mentor: Peter Small, MD</li> </ol>
Ryan Heslin	Research	"The Effects of Fibronectin Peptide P12 on Vasodilation and Angiogenesis in Periburn Tissue" <b>Mentor:</b> Richard Clark, MD
Caronae Howell	Research	"IV Morphine vs. IV Acetaminophen for Post-Operative Pain Control in the NICU: A Retrospective Cohort Study" <b>Mentor:</b> Helen Hsieh, MD, PhD
Timothy Huang	Research	"Development of a Targeted Therapy Against Colorectal Cancer" <b>Mentor:</b> Vincent Yang, MD, PhD
Rachel Jones	Medical Education	"Inter-rater Reliability of a Tool to Assess Interprofessional Collaboration and Teamwork" <b>Mentor:</b> Latha Chandran, MD, MPH
Kailash Kapadia	Research	"Patient Perception and Recall of Prior Mesh Surgery for Stress Urinary Incontinence or Pelvic Organ Prolapse" <b>Mentor:</b> Jason Kim, MD
Kate Kerpen	Research	"Disparities in Death Rates in Women with Peripartum Cardiomyopathy Among Advanced vs. Developing Countries: A Systematic Review and Meta-Analysis" <b>Mentor:</b> Kathleen Stergiopoulos, MD, PhD
Jaydon Kiernan	Global Health	<ol> <li>"Determining the Prevalence of Cysticercosis and Taeniasis in Rural Infandiana, Madagascar"</li> <li>"The Epidemiology of Soil Transmitted Helminth and Strongyloides stercoralis Infections in Remote Rural Villages of Ranomafana National Park, Madagascar"</li> <li>Mentor: Peter Small, MD</li> </ol>
Justin Konig	Research	"The Effect of Hydroxychloroquine and Its Metabolite on Reverse Cholesterol Transport in THP1 Monocytes" <b>Mentor:</b> Allison Reiss, MD
Xiao Li	Global Health	"The Analgesic Modulation of Standardized Acupuncture and the Cerebral and Muscular Hemodynamic Response in Migraine Patients" <b>Mentor:</b> Raja Jaber, MD
Kai-Li Liang	Research	"Tissue-Engineered Vascular Grafts for Use in Vascular and Reconstructive Surgery" <b>Mentors:</b> Gurtej Singh, PhD, and Alexander Dagum, MD
Yi-Hsueh Lu	Research	"An Anatomic Feasibility Study on the Use of the Hypoglossal Nerve as a Donor for Free Functioning Muscle Transfer in the Upper Extremity" <b>Mentor:</b> Alexander Dagum, MD
Brandon Lung	Research	"Monitoring Quality Metrics in Screening Colonoscopy May Contribute to Advancing Colorectal Cancer Equity" <b>Mentor:</b> Ellen Li, MD

Rishi Malik	Research	"Comparison of Pulmonary Embolism Risk Stratification Tools in Their Ability to Predict Adverse Outcomes" <b>Mentor:</b> Adam Singer, MD
John Medamana	Research	"Fibronectin-Derived Peptide P12 Accentuates Platelet-Derived Growth Factor's (PDGF-BB) Growth and Survival Activity on Cardiomyocytes" <b>Mentor:</b> Richard Clark, MD
Jessica Montes	Global Health	"Calcified Neurocysticercosis and Headache in an Endemic Village: A Case-Control Study Nested to a Population-Based Cohort" <b>Mentor:</b> Mark Sedler, MD, MPH
Brianna Morgan	Global Health	"Infant Mortality and the Epidemiological Paradox" <b>Mentor:</b> Mark Sedler, MD, MPH
Mahad Musse	Medical Education	"When the Diagnosis is the Least of the Patient's Problems" <b>Mentor:</b> Grace LaTorre, DO
Anh Nguyen	Research	"Patients Have Poor Compliance with Repeat Onabotulinumtoxin A Injections for Overactive Bladder" <b>Mentor:</b> Jason Kim, MD
Amanda Owens	Research	"Trends in Maternal Heart Disease and Major Adverse Cardiac Events During Pregnancy in New York State: 2000-2014" <b>Mentor:</b> Kathleen Stergiopoulos, MD, PhD
Joel Rowe	Humanities	"Why Medical Students Go Abroad and How a Sense of Common Humanity Could Impact Burnout" <b>Mentor:</b> Stephen Post, PhD
Erica Yibei Shen	Research	"The Stony Brook Awake Craniotomy Protocol: A Technical Note" <b>Mentor:</b> Charles Mikell, MD
Andrew Starr	Humanities	"Humility in Medicine" <b>Mentor:</b> Stephen Post, PhD
Erin Thomas	Research	"Pulmonary Hypertension and Pregnancy Outcomes: Insights from the National Inpatient Sample" <b>Mentor:</b> Kathleen Stergiopoulos, MD, PhD
Nicholas Tsouris	Research	"A Biomechanical Comparison of Alternative Graft Preparations for All-Inside Anterior Cruciate Ligament Reconstruction" <b>Mentor:</b> James Paci, MD
Kazi Ullah	Research	"Emergency Department CT in Early Acute Pancreatitis" <b>Mentor:</b> Eric Morley, MD
Ting-Yu Wang	Research	"Gender Disparities in Management and Outcomes Following Transcatheter Aortic Valve Implantation with Newer Generation Transcatheter Valves" <b>Mentor:</b> Puja Parikh, MD, MPH
Bennett Wechsler	Research	"Relations Between Cortical Thickness, Serotonin 1A Receptor Binding, and Structural Connectivity: A Multimodal Imaging Study" <b>Mentor:</b> Christine DeLorenzo, PhD
Brody Wiles	Research	"Lung Cancer and Abdominal Aortic Aneurysms" <b>Mentor:</b> Thomas Bilfinger, MD
Alvin Wu	Research	"Are Analgesic Administration and Surgical Manipulation Reflected in the Analgesia/ Nociception Index?" <b>Mentors:</b> Elliott Bennett-Guerrero, MD, and Daryn Moller, MD
Ying Yi Zhang	Research	"Effect of Glycemic Control on Colonic Adenoma-Carcinoma Progression in Patients with Diabetes Mellitus" <b>Mentor:</b> Joshua Miller, MD, MPH





# **STUDENT REFLECTIONS**

### The Scholarly Concentrations Program Experience

By Amanda Owens, Class of 2019



Even though we do not graduate for a couple of weeks, May 2 marks the culmination of four years of hard work for myself and many of my Class of 2019 classmates, as we present our research projects for the Scholarly Concentrations

Program at Research Day. At the start of our first year we all made a commitment to dedicate much of our summer breaks, elective time and late nights/weekends during clinical rotations to a research project of our own choice and creation. We were assigned the formidable but exciting tasks of developing new research questions, writing IRBs for approval, finding research mentors, applying for grants, authoring abstracts or manuscripts and for some students, even traveling to other countries to collect data or collaborate with other institutions. Despite these daunting expectations, I have nothing but great things to say about the Scholarly Concentrations Program and the many opportunities and career shaping effects it has had on my time at Stony Brook.

Before medical school, I never thought of myself as much of a researcher. I did bench research in high school, worked in an animal behavior lab during college and did data collection for a prospective study as a summer job, but with each of these projects my role was tangential — none of them were my own. The Scholarly Concentrations Program (SCP) provided me with my first opportunity to develop a research project from start to finish.

In the fall of my first year, I reached out to multiple mentors who had volunteered to be contacted by students looking for research topics to pursue. I was so lucky to find my PI and mentor, Dr. Kathleen Stergiopoulos, through this process. Dr. Stergiopoulos is a cardiologist whose clinical and research focus is on treating pregnant women with heart disease. As an MD PhD and experienced mentor for students in the SCP, she was able to help guide me through so many firsts: my first grant application, my first abstract submission, my first scientific poster composition, my first oral presentation at a medical conference, my first manuscript submission, the list goes on and on.

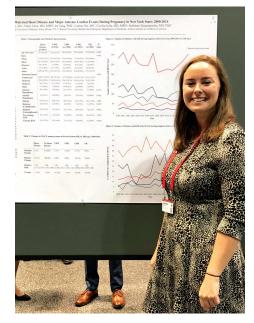
During the summer between first and second year, I was able to start working on my research project, thanks to funding through the SCP. Together with Dr. Stergiopoulos, I chose to study the maternal and fetal outcomes in mothers with various forms of heart disease in pregnancy. The number of women with heart disease during pregnancy is growing, but there is very little data published on how different types of heart disease (valvular, congenital, pulmonary hypertension, cardiomyopathy) impact the babies of these mothers.

After helping to tailor the IRB and getting it accepted, we were able to analyze the data we acquired from the New York State SPARCS database (a statewide registry of inpatient hospitalizations that allowed us to link the mother's record with her baby's health record). I spent afternoons combing through the data with our statisticians in the bio statistical core at Stony Brook. They were a tremendous help in analyzing the data using SPSS and Stata. In order to keep up with the other MDs on our research project. I read all of the papers I could find published in this field and sought to understand the hemodynamic changes of pregnancy, along with the many ICD-9 codes that represented the diagnoses we were studying. My research helped integrate and accelerate what we had learned in our CPR and Endo Repro classes with real-life examples of the disease state.

During that first summer, I also learned how to apply for grant funding and was lucky to be awarded over \$8,000 in project support from various organizations such as the New York Academy of Medicine, American Heart Association and American Medical Association. One research question led to another, which led to another, so we kept analyzing different subgroups and trends in the data.

During my third year, I was invited to travel to present my research at the American College of Physicians annual conference in sunny San Diego, as one of the young achievers abstract winners. Even as a poor medical student, the SCP gave me the chance to travel the country to meet other researchers and attend procedure workshops and talks about new guidelines. The greatest part of the SCP for me, though, was the opportunity it provided for me to combine my two most passionate interests.

Unlike many of my classmates who came into medical school knowing exactly what field they wanted to enter as a physician, I was a little uncertain. I loved each clinical rotation more than the last, and even did two sub-internships, because I was still so torn between medicine and ob/gyn at the end of my third year. My research project



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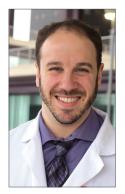
## **STUDENT REFLECTIONS**

allowed me to combine these two interests perfectly and helped me to ultimately decide on the Internal Medicine Primary Care track at Mount Sinai Hospital for residency, where I will be able to focus on women's health. I got to attend and present my research at general medicine, cardiology-specific and obstetric national meetings, giving me amazing exposure to these various fields of practice.

Had you told me four years ago that I would be so involved in a research project I love, on a topic I truly care about, with a first-author published paper in a reputable journal, I would have never believed you. The Scholarly Concentrations Program gave me and so many others a unique opportunity to defy the odds. Thank you to Dr. Stergiopoulos and all of the other amazing mentors for taking a chance on us eager first-year medical students, and congratulations to my classmates on all of their amazing research accomplishments! •

### Scholarly Research Program Leads to Study in Denmark

By Justin Charles, Class of 2019



It was a cold day in February with the grant application only a few days away. I changed my desktop background to a picture of Nyhavn, the beautiful colored houses that lined the harbor in Copenhagen, in the hopes of good luck. I was waiting

to hear if I was accepted to receive funding to travel to Denmark to pursue my Scholarly Concentrations Program in the medical humanities, studying physician empathy in Danish general practice. I had first fallen in love with Denmark when I studied there for a semester in college. There, I first learned about their general practitioner-driven healthcare system that had a strong focus on the physician-patient relationship and continuity of care. I knew I wanted to return, but I didn't know how.

The opportunity arose after a Medicine in Contemporary Society class on empathy and compassionate care taught by Stephen Post, PhD. I approached him after class, told him of my interest in primary care and the therapeutic role of the physician-patient relationship, and started talking about a project idea to study physician empathy in general practice. I suggested Denmark as the location for the study. Dr. Post connected me with Mohammadreza Hojat, PhD, the creator of the Jefferson Empathy Scale used globally to measure physician empathy. With their guidance, I drafted a project proposal and was set to apply for funding through the International Health Fellowship run by Mark Sedler, MD, MPH.

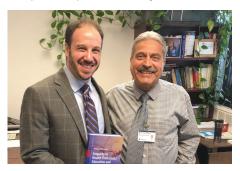
However, I still needed to have a research mentor local to Denmark that would sponsor my project and provide the resources needed to complete it. I set out on a quest, emailing the corresponding authors for every related paper I could find, hoping that someone would be willing to take on my project. After a wild goose chase that lasted many months, I received an email from Jens Søndergaard. MD. PhD. GP. the head of the Research Unit for General Practice in Odense. He accepted the offer on behalf of his department to be my research mentor and offered to have me spend two months in the research unit, working under the mentorship of Troels Kristensen, PhD. Shortly thereafter, I learned my project was accepted for funding and I hurriedly booked my plane ticket to Denmark.

I arrived on a warm June day to Odense, home to the famous fairy-tale writer Hans Christian Andersen. I was welcomed with open arms to the research team, and we began work on our project. The aims of the project were to assess empathy in a population of Danish general practitioners (GPs), assess a variety of demographic, professional and job satisfaction characteristics, and determine the relationship of these characteristics to empathy. This was no easy feat, especially because we needed everything to be in Danish, and I knew only a few words of the very complicated language. However, at the end of the summer, with the mentorship of the team and some fantastic translators, the survey was ready to be sent to 1,200 Danish GPs. While I was in Denmark, I also had the opportunity to attend the

WONCA Europe Conference in Copenhagen, which hosted GPs from all over the world for several days of interesting seminars, workshops and research presentations.

Once I returned home from Denmark and the results of our study were in, Dr. Kristensen and I began the data analysis. We found Danish GPs to have above average levels of empathy, and GPs who viewed interpersonal aspects of medicine to be most important to their job satisfaction tended to be more empathetic than their peers. Dr. Kristensen and I made time to speak over Skype despite the six-hour time difference and set out to draft a manuscript on our exciting results. Over the course of the next few years, I would travel to Iceland, The Netherlands and back to Copenhagen to present our findings.

Then came the manuscript submission. The process was daunting, as it was the first paper I'd ever written. I probably have hundreds of back-and-forth emails with revision suggestions, new papers to read and brainstorming over how to address the comments sent back by reviewers. But lo and behold, in March 2018, we had a paper accepted to a peer-reviewed journal!



A few months later, we had the wonderful opportunity to host my Danish colleagues at a colloquium at Stony Brook. It was titled "Empathy in Medicine: Lessons from Health Care in Denmark." We presented about the Danish healthcare system and findings from our research in physician empathy in Danish General Practice, and hosted a panel on Medical Engagement and Organizational Vitality, which featured hospital executives and Dean Kaushansky himself. We also presented our research findings at Sidney Kimmel Medical College to Dr. Hojat and his colleagues, where we received invaluable feedback for the future direction of our project. In the future, we plan to analyze the relationship between empathy and perceived workload of GPs, antibiotic prescribing patterns of GPs and health outcomes of patients with chronic diseases such as COPD and diabetes.

I could not have done this without the endless support of the wonderful research mentorship I've gotten here and abroad, the Scholarly Concentrations Program and the International Health Fellowship. I am endlessly grateful for the late hours Dr. Kristensen spent revising our work, giving me targeted feedback and offering consistent guidance to help me develop into a more competent researcher. We are excited to pass the torch on to a current first-year student who will be traveling to Odense this summer to help us continue our work and present at the Nordic Congress of General Practice in Aalborg, Denmark.

### **Reflections on the Medical Scientist Training Program**

By Himanshu Sharma, Class of 2019



Two weeks after turning 30, I stood in a room filled with the brightest, kindest and most driven people I have ever met. We had gathered to discover and to celebrate our collective next step — residency. In this company, at-once inspiring

and intimidating, I silently contemplated my own circumstances. Behind me lay medical school and a PhD. Ahead stretched a life as a neuroscientist and neurosurgeon. This was a moment I could not have predicted even a few years ago. I haven't always wanted to be a doctor or a scientist. In fact, I am living a dream that I didn't fully discover until I was 29.

The common thread of my dreams has always been a desire to help people and to tackle important, complex problems. Chasing the important, in college I explored physics, economics and international relations, eventually finding my way to medicine. Throughout most of my time in the Medical Scientist Training Program (MSTP), I remained undifferentiated. Continuing to pursue the complex, I studied neural stem cells during my PhD, finding their potential both beautiful and profound. Ultimately, I found my home in the neurosurgical OR. In the process, however, I discovered something far more beautiful and profound than anything I've ever seen in the OR or under the microscope. I found a group of eclectic, brilliant and awe-inspiring men and women: my MSTP cohort. They were students with a shared desire to stand astride, with one foot in the laboratory and the other in the clinic. Thus balanced on the shoulders of those two giants, my classmates were eager to peer just a little further ahead.

And we were not alone. In the process of discovering that balance — a process incredible, terrible and wonderful that took the better part of a decade — we each found friends, teachers and role models in the students, staff and faculty around us.

Indeed, as I reflect back on my time in the Stony Brook MSTP, I find that it has been the single greatest privilege of my life to work with and learn from these people. People like my research mentor Holly Colognato, PhD, who gave me the freedom to try and fail over and over for years, failing a little better each time, until eventually, we succeeded. Their acts of generosity have left indelible marks on my life and those of my cohort. Acts like the unbidden kindness of an administrative assistant, Ms. Roseanna Stasik, who arranged for my first glimpse of neurosurgery seven years into an eight-year program. In four short days, this kindness changed my career forever, allowing me to discover a new dream. These people

have shaped not only my academic career, but also the scientist, the physician and the man I hope to become. It is, I believe, a debt I can only repay by paying forward.

In the larger estimation, the people of Stony Brook have made the defining impact during our time in the MSTP. It is truly a credit to our program and this institution that the impact has, on the whole, lifted us to new heights and helped us deserve our dreams. For me, these people have also contributed to my own intellectual coming of age. Here, at the Stony Brook MSTP, I have found exactly what I needed when I started at 22. I found a place to train with good, decent people who also have the audacity to believe that we can, through hard work, creativity and dedication, fight at the very edge of our ability to discover and to heal. Perhaps one day, some of us will be lucky enough to have the phrase (albeit in Latin) on a medal as yet more proof, but for my MSTP family the phrase already rings true: They who bettered life on earth through their new-found mastery.

In a few short months, my six colleagues will scatter across the country to leverage their unique talents as physicians, scientists and teachers. Their patients and students will be profoundly fortunate to have them. I, myself, am incredibly excited to watch what they do. Whatever it is, I know this: They will do well, and they will do good.

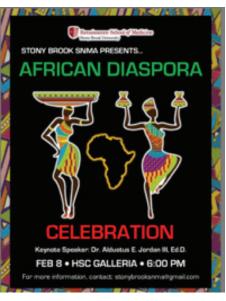


## **AFRICAN DIASPORA**

**On February 8,** the Stony Brook chapter of the Student National Medical Association (SNMA), hosted its tent-pole cultural event, The African Diaspora Celebration. Each year, first-year medical students organize a fun, exciting night to uplift and shine a light on black culture throughout the diaspora and fundraise for causes they are passionate about. The event started out with a moving rendition of "Lift Every Voice and Sing" a song often referred to as the "Negro National Anthem"—by the Stony Brook Gospel Choir. The night then progressed into a showcase of talent in poetry, dance, trivia skills, fashion and music.

The event took place during Black History Month and, as such, served as an opportunity to reflect on the progress that has been made in diversifying the face of medicine. Our very own Aldustus Jordan III, EdD, Associate Dean for Community Engagement and Service Learning Emeritus, presented an inspirational speech on the struggle black physicians experienced to create a space where they could practice medicine and empower future generations after their rejection from the American Medical Association. He then charged us to continue to be forces for positive change in our local and global communities.

At the end of this event, through a raffle from vendors throughout Suffolk County, the SNMA raised funds for several vital causes that predominantly impact minority and underserved communities. These include Stony Brook HOME (Health Outreach and Medical Education), a studentrun free clinic that serves the uninsured, and the Hemoglobinopathy Center at Stony Brook Children's Hospital, which is recognized by New York State for assisting children with disorders, such as sickle cell disease and thalassemia.







# **HISPANIC HERITAGE**

**On October 9, 2018,** the Stony Brook Chapter of the Latino Medical Student Association (LMSA) hosted its annual Hispanic Heritage Night celebration. It was a celebration of Hispanic culture from around the world.

The evening featured a talk by Cristina Hernandez, MD, Clinical Assistant Professor, Department of Emergency Medicine, about her international outreach. Attendees were treated to a flamenco guitar performance and a salsa lesson, as well as a feast of flavorful foods. The evening served as a venue for the Stony Brook Medicine community to celebrate all that the Hispanic culture has to offer.

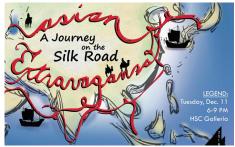


# **ASIAN EXTRAVAGANZA**

**On Tuesday, December 11, 2018,** the Asian Pacific American Medical Student Association (APAMSA) hosted its annual school-wide event, Asian Extravaganza, to introduce, explore and celebrate the diverse cultures of Asian/Pacific Islander American (APIA) communities at Renaissance School of Medicine at Stony Brook University.

This year's theme represented the Silk Road that touched and connected hundreds of cultures in Asia, titled "Journey on the Silk Road," with the décor and atmosphere of the event reflecting its historical symbolism. In accordance with APAMSA's mission of advocating for APIA health, this annual event is one of many opportunities for medical and dental students to demonstrate their steadfast support of APIA communities in Suffolk County. With hundreds of attendees present, individuals enjoyed refreshments from various Asian cultures and participated in several entertainment activities of their choice. The event featured an a cappella group, poetry reading, stand-up comedy, several talented medical and dental students dancing in a Bhangra competition, and students singing songs from their culture.

The highlight of the night was the annual Asian Extravaganza fashion show with students displaying traditional clothes from many different Asian cultures as they walked the stage. The event also provided raffle prizes filled with countless gifts donated by members of School of Medicine faculty and local communities of Stony Brook, with proceeds going to support APAMSA and APIA health within Suffolk County. •















### **EVENING OF THE ARTS**

**On Wednesday, May 1,** the annual Evening of the Arts was held for all students, faculty and administration of the Renaissance School of Medicine at Stony Brook University, as well as students at Stony Brook University School of Dental Medicine. The event showcases the arts, both visual and performance, by members of our community. It is meant to celebrate the spectacular talents outside of the hospital that many possess but may not get recognition for or might not have as much time for anymore.

The Evening of the Arts was free to all to contribute, whether it was a performance or a piece of artwork. There was a variety of artwork, including paintings, drawings and photography. The performance pieces included vocal performances, dances, poetry and many others. It was an incredible night filled with laughs and applause.





# **CLASS OF 2019 HONOR SOCIETIES**

#### ALPHA OMEGA ALPHA HONOR MEDICAL SOCIETY

Nathan Agi Catherine Austin Amanda Bader Danielle Barnett Jonathan Barnett Edward Carey Justin Charles John Cordero Camilla Dagum Chris Du Alec Friedman Jesse Frye Nicole Golbari Ryan Heslin Yi-Hsueh Lu John Medamana Brianna Morgan Rahul Roy John Wallis Todd Wechter Brody Wiles Sara Yang

### GOLD FOUNDATION HUMANISM HONOR SOCIETY

Amanda Bader Danielle Barnett Carolyn Birbiglia Christine Cahaney Paul Castle Katelynn Champagne Gabriela Chateau Camilla Dagum Elizabeth Dalchand Alec Friedman Timothy Friedmann Kevin Fujita Kiran Lorick Ngoda Manongi Tonie McKenzie Amanda Owens Hollisa Rosa Mary Weng Marissa Wolfe Jung Yun





We thank the Renaissance School of Medicine Alumni for their continuous support.

For further information or to make a donation, please visit **stonybrook.edu/SOM-AlumniSupport** or feel free to contact Mary Hoffmann at **Mary.hoffmann@stonybrook.edu.** 

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