

UPSTATE  
MEDICAL UNIVERSITY

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REPORT  
OF THE  
PRESIDENT



2022-2023 ACADEMIC YEAR

MANTOSH DEWAN, MD

**SUNY Upstate Medical University**  
**Report of the President: 2023-2023 Academic Year**  
**Mantosh Dewan, MD**

**OVERVIEW AND PRESIDENT’S REMARKS**

*“SUNY Upstate Medical University and its public teaching hospital are powerful economic and social engines for our community, where devoted and skilled people perform miracles every day.” — Editorial, Syracuse.com, April 16, 2023*

When 11,00 amazing people exceed expectations every day, you get spectacular results. This is the story of Upstate Medical University which has excelled in fulfilling its mission to improve the health of the communities we serve through education, biomedical research, and patient care.

Upstate’s success is driven by its new strategic plan, which has two pillars, *Excellence and Access*, and six priority areas. These are applied to our education, biomedical research and patient care missions — and to every area of the organization. Most importantly, every individual at Upstate impacts these priority areas, to improve and do more, and helps the university achieve excellence and access.

The priority areas under Excellence are:

- Improve Quality and Enhance Patient, Staff, and Learner Experience
- Enhance Innovation
- Improve Efficiency, Sustainability and Fiscal Responsibility

The priority areas under Access are:

- Increase Diversity, Equity, Access and Inclusion
- Grow Programs and Community Partnerships
- Optimize Technology, Facilities and Support Services

Evidence of our success in these areas is shown throughout this report.

**Education**

Upstate’s four colleges — Graduate Studies, Health Professions, Medicine, and Nursing — are flourishing. The *Norton College of Medicine’s* redesigned curriculum provides students more clinical experience and strengthens interprofessional experiences with office staff and Advanced Practice Professionals (NPs and PAs). We also matriculated the first students in our three-year MD program, thereby making it a year shorter and less expensive. There are 720 students (including in Public Health) and over 700 residents and fellows training in 52 accredited programs. The 837 full-time and part-time faculty members are the highest ever for the college. The *College of Health Professions* offers a number of programs that are exclusive and innovative, including a new one-year Masters in Applied Behavioral Analysis, which has been refashioned from a two-year program. The college also hosts a new pathways program, Jump into Health Care, which brings high school students to campus to get a hands-on feel for

health care careers. The *College of Nursing* has many partnerships with SUNY schools, including a new Doctorate in Nursing Practice at SUNY Canton. Another innovative way to bring qualified health care professionals to underserved areas was funded by a nearly \$3 million grant to train/educate more nurse practitioners in these areas and with populations, such as Native American, in need of this vital service. This Fall we matriculated our largest class ever into our *College of Graduate Studies* with 32 students, bringing the total count to 143 across seven programs of study. This also is the largest number in the college's 72-year history.

## **Research**

Research continues to dazzle. After a best-in-the-nation response to the covid pandemic (here we developed the best saliva test; conducted 1 million tests on ~60 SUNY campuses, and over 4 million tests overall; had the principle investigator for worldwide clinical trials of the first Pfizer vaccine; and Upstate is one of four State sequencing labs to monitor variants), Upstate's research program continues to grow with research expenditures now \$44.5 million—the most ever. Our researchers are also incredibly productive. When counting all 220 employees who are involved either full- or part-time in research, the average expenditure was \$184,000/FTE. When only the basic science faculty, who tend to be full-time researchers, were considered the average expenditure was \$265,000/basic science FTE.

Our CNY Biotech Accelerator is now bursting at the seams. This innovative facility provides specialized space for 15 companies, supports 19 virtual companies, and has an economic impact of nearly \$40 million. We also have brilliant faculty — for example, Dr. Stephen Faraone, was named the 80<sup>th</sup> best scientist in any field in the world and 5<sup>th</sup> best in NY State. We have companies with game-changing projects, achieving an astounding and unprecedented four FDA Breakthrough designations! By strategically reinvesting the \$11 million in royalties we earned in the past two years, we are confident Upstate can accelerate scientific breakthroughs and create another reliable stream of income.

## **Patient Care**

Innovation also is the buzzword in patient care, and technology is a big part of the buzz. It's not out of the ordinary to be sharing a hospital hallway with one of the hospital's fleet of autonomous mobile robots, known as TUGs, which now bring medications, supplies, and even meals to patient care floors. The successful use of this technology enables Upstate to keep nurses and other clinical staff at the patient's bedside, leaving such off-floor missions to our TUGs. Upstate — the first hospital in the nation to get FAA approval for medical drones — continues to find innovative uses for drones, from delivering medications to patients to sending specimens to our off-campus pathology labs. In addition to new technologies, Upstate has invested in bricks and mortar patient care with the opening of the spacious new Nappi Wellness Institute, the first health care facility in the State to be WELL certified. Decorated with works from local artists, this aesthetically wondrous facility brings together key clinical services for patients, especially the busy Joslin Diabetes Center which had previously been located three miles away from the center of campus. The new Cancer Center at Verona is the first State facility on native nation land and opened its doors in October. A children's psychiatric hospital (with the State's first and only inpatient program for children with autism and behavioral dyscontrol) will start serving patients soon. This exemplifies our Strategic Plan's focus on Excellence and Access.

## **Partnerships, particularly with other SUNYs**

Partnerships with other, primarily regional SUNY campuses are both important and gratifying. Some examples: the School of Optometry will build a regional extension at Upstate in collaboration with our Department of Ophthalmology; we have a formal agreement with Binghamton University's Watson School of Engineering to build research programs (eg growing organs for transplantation); we have nursing programs with Onondaga CC, Cayuga CC and Canton. We also are working on converting our Clinical Campus to a full- fledged Upstate regional medical school in partnership with Binghamton University.

## **Upstate in the Community**

Literally everyone in Central New York knows someone who works at Upstate. Just as our employees are everywhere, so is Upstate. One would be hard pressed to find a community event or cause that does not have support from Upstate. The university continues to field one of the largest teams for the featured Making Strides walk/run to raise money for breast cancer research. Our signature breast cancer program, She Matters, celebrated its 10th anniversary and continues to break down barriers to mammograms for underrepresented groups, as our mammovan extends a regional reach. Our "Your Cause" commitment this year is extended to Francis House, a revered local agency that provides hospice care to many. Upstate's workforce remains one of the most charitable in local giving, providing more than \$570,000 in support for the SEFA and United Way Community Giving campaigns.

## **Looking ahead with optimism and excitement**

Upstate excels as a robust hub of innovation, outstanding patient care, cutting-edge research, and dynamic education for learners of all ages, while remaining a responsive institution to the needs of our local community, the state and beyond. We give an incredible return on investment: for every dollar from the State, we generate \$58 (the SUNY-wide average is \$8). Given our amazing 11,000 people at Upstate, we are proud of our achievements and confident that we will achieve even more as our regional demands grow, especially with the planned arrival of Micron, a major initiative for Central New York.

Based on these successes and good work, we enter the next year with optimism and excitement.

A handwritten signature in black ink that reads "Mantosh Dewan". The signature is written in a cursive style and is positioned above a horizontal line.

**Mantosh Dewan, MD**  
**President**  
**SUNY Distinguished Service Professor**



*SUNY Upstate Medical University in Syracuse is the only academic medical university in Central New York and is built around a mission to improve the health of the people we serve through education, research, patient care and service. It is the largest employer in the region.*

*Upstate is proud to be part of the State University of New York, educating the next generation of professionals. As a research enterprise, Upstate investigates some of the most critical diseases and all research is related to improving human health. As a medical enterprise, Upstate serves 1.8 million people, covering a service area that is one-third of NY state.*

*The following report highlights our academic year accomplishments, as well as future plans for growth and continued success at Upstate as we fulfill our mission.*

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Below we highlight some of our past academic year’s accomplishments, as well as future plans for growth and continued success at Upstate as we fulfil our mission of education, research, patient care, and service.

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## EDUCATION

### ACADEMIC AFFAIRS

**Lynn Cleary, MD** – *Vice President for Academic Compliance & University Accreditation*

The Office of Academic Affairs provides support for academic programs to deans, educational program directors and faculty, including support for new program approval and major changes to curricula or the infrastructure supporting education. It supports educational innovation, assessment and evaluation, and promotes educational research and scholarship. The office serves as the primary academic liaison with SUNY, the Middle States Commission on Higher Education (MSCHE) and the Liaison Committee on Medical Education (LCME). It is responsible for Accreditation and Compliance; Evaluation, Assessment and Research; the Clinical Skills Center; Interprofessional Education; the University Simulation Center; and Microcredentials. Members support or lead many faculty/student committees in curricula and assessment; develop and update policy and procedures; identify honorary degree recipients, distinguished professors, SUNY Chancellor's and Upstate President's Awards; and sponsor Fall Faculty Convocation. Academic Affairs produces the annual Academic Catalog and the University Calendar, supports the Faculty Council (university faculty governance), and supports an active student honor society which provides most academic tutoring for the College of Medicine.

#### **Academic Accreditation and Compliance**

- Collated comprehensive details pertaining to LCME's 12 standards and 93 elements regarding the College of Medicine's compliance status, progress achieved, and areas necessitating improvement or corrective measures.
- Delivered annual accreditation updates to both MSCHE and LCME.
- Utilized the 2023-2024 Liaison Committee on Medical Education (LCME) Data Collection Instrument (DCI) to pinpoint areas requiring inquiry for a thorough assessment and ongoing compliance assurance.
- Assisted the College of Nursing in crafting their updated self-study report for CCNE reaccreditation.
- Provided support to the College of Health Professions Radiation Therapy program in preparing their revised self-study report for JRCERT reaccreditation.
- Initiated the development of visually engaging representations of data, enhancing the transformation of raw data into captivating visualizations, facilitating more effective communication of insights, and enabling viewers to better comprehend and engage with the data.

#### **Evaluation, Assessment and Research**

- The Student Learning Outcomes Committee (SLOC) is comprised of faculty and staff from all four colleges and is facilitated by our team. During the 2022-23 year, the SLOC:
  - Conducted a comprehensive review of assessment portfolios from academic programs within the Colleges of Health Professions and Nursing;
  - A dedicated effort was made to enhance the user experience of our shared resources Learning Management System (LMS) site, streamlining navigation for all users;
  - Introduced a new assessment process encouraging academic programs to articulate their methods of communicating assessment results, thus promoting best practices in assessment.
  - Initiated the selection process for two new student representatives, amplifying the student voice within the committee.
  - Established a formal mechanism to acknowledge and honor faculty members for their invaluable contributions to the assessment of student learning outcomes.

- In collaboration with the Information Management and Technology (IMT) department, we revamped our office's web presence, enhancing its user-friendliness.
- Contributed to published, peer-reviewed papers with faculty from 8 academic departments and student affairs. We also contributed ongoing research within three colleges.
- Represented Upstate in the national MEDCARE (Medical Educators Dedicated to Collaboration for Assessment, Representation, and Equity) community of practice. This national collaboration led to a poster presentation at the Association of American Medical Colleges' annual meeting, the submission of a Vision grant application to the Spencer Foundation, and an invitation to deliver an address at an AMA ChangeMedEd pre-conference.
- Supported three student-faculty teams embarking on educational innovation and research projects through the medical education electives (NTD9447, INTD9446). One of these teams presented their work at a regional conference and currently has a research paper awaiting peer review.
- Supported assessment and evaluation endeavors across academic programs, particularly in light of curriculum changes in the College of Medicine and the forthcoming accreditation reviews within the Colleges of Health Professions and Nursing.
- Delivered invited faculty development presentations, highlighting innovative assessment practices and the equitable crafting of narrative assessments.
- Made notable enhancements to data analytics and visualization efforts. These efforts were instrumental in contributing to the University's strategic plan and accreditation documents for the College of Nursing and the Middle States Commission on Higher Education (MSCHE).

#### **Academic Programming and Recognition of Excellence**

- Provided support to 8 committees and the processes to identify and recognize SUNY honorary degree recipients, SUNY Distinguished Professors, SUNY Chancellor's Awards and President's Awards for Excellence.
- Provided administrative support to Faculty Council and SUNY Faculty Senators.
- Developed infrastructure for expanded resident election to the AOA National Medical honor Society and more holistic election process for student and resident elections.
- Provided administrative support to submission of new and modified academic programs to SUNY and to the New York State Education Department.

#### **Upstate Simulation & Clinical Skills Center**

- The Simulation center has seen an > 60% increase in supported sessions and there is an increase in utilization (participants up by > 40%) primarily driven by the increased hospital use of simulation services in comparison to previous fiscal year (63% from 47% in 2021).
- The Clinical Skills center completed over 40 SP case trainings and 7,300 facilitated encounters with learners.
- The appointment of the Director of the Simulation Center has provided opportunity for a more consolidated organizational structure with single directorship oversight for the simulation center and clinical skills operations, and increased focus on scholarship and research related.
- A search for a new Director of the SP program is underway and is supported by the Director of Operations position evolved from expanded responsibilities of the operations manager functions. The streamlined organizational restructure aligns strategy and creates greater opportunity to leverage cross training and collaboration across operations with facilitation of initiative development and implementation.

#### **Interprofessional Education (IPE)**

- The Office of IPE is supported by a Director and Faculty Leaders from each college.
- In 2022-23, the IPE Team delivered major virtual programming for students in all colleges, one in the fall to introduce all new students to interprofessional collaboration and patient-centered care, and one in the spring focusing on clinical care and patient and community collaboration.



## **Other Projects**

- **Microcredentials**

In 2022-23 Upstate's microcredential offerings continued to grow with six additional microcredentials approved this year for students, faculty, and staff: Excellence in Medical Quality Improvement and Patient Safety, Physician Advocacy, Quality Scholars, Teaching Strategies and Skills for Upstate Faculty, Advanced Excel for Administrative Professionals, and Learning To Lead For Nurse Manager Succession. Since its inception, 171 microcredentials have been awarded through the Credly digital badging system.

- **Exceptional Moments in Teaching Program**

We continued management for the Exceptional Moments in Teaching Program in the College of Medicine. In 2022-23 there were 270 student submissions on how 179 different teachers from 21 departments provided an exceptional educational experience. Themes included their teachers' roles in providing career advising, passion for teaching, and opportunities to participate in interesting and unique patient care experiences. Students expressed a desire to emulate their teachers in their future practices as physicians as they provided excellent patient care, bedside manner, and empathy to patients and their families.

- **Job shadowing for pre-health career high school students**

In the spring of 2023, Academic Affairs along with Nursing Recruitment and the Department of Radiology coordinated a job shadowing experience for the students in the Early College High School Program at Fulton's G. Ray Bodley High School. During July, students with interest in the health sciences program were provided a behind-the-scenes look at Upstate Hospital at both the downtown and community campus by providing seniors 20 hours of service credit working with doctors, nurses, and hospital staff in a variety of medical fields.

### **Academic Affairs: Plans for the 2023-2024 Academic Year**

#### **Academic Accreditation and Compliance**

- Revitalize the efforts of the Committee on Institutional Effectiveness to foster continuous quality enhancement and surpass MSCHE standards.
- Revamp the LCME and MSCHE reaccreditation webpages in anticipation of the 2026-27 evaluations.
- Continue in the creation of data visualization tools aimed at enhancing the communication of data and insights.
- Organize and submit a 2023 LCME Status Report, including comprehensive information on career advising.
- Ensure measures of progress relative to academic programs within the Strategic Plan are updated and monitored.
- Based on areas identified for improvement from the 2023 GQ results, collaborate on formulating and implementing an improvement plan.

#### **Evaluation, Assessment and Research**

- Support the successful presentation of assessment data and processes during multiple accreditation site visit/reviews;
- Promote innovation in assessment design across academic programs;
- Establish evaluation portfolios with direct and indirect measures for new academic initiatives;
- Improve access to data and programming to support institutional research

#### **Academic Programming and Recognition of Excellence**

- Hire Project Manager to right size staff responsibilities and address additional needs.

### **Upstate Simulation & Clinical Skills Center**

- Collaborate with University Hospital to explore opportunities for the Simulation Center to support efforts in Quality Improvement.
- Work with University Hospital to determine appropriate hospital contributions toward center budget commensurate with increased use from hospital services.
- Pursue center accreditation by the Society for Simulation in Healthcare (SSH).
- Develop and implement a professional development '*train-the-trainer*' course for clinician-educators to gain formal expertise in simulation methodologies in healthcare simulation. Include an Upstate microcredential in simulation education to foster engagement and route to formal credential by certifying body (SSH is gold standard society of simulation in healthcare).
- Onboard and orient new Director of SP program; initial project development of SP training program and community outreach. Establish potential pipeline for training a growing pool of diverse standardized patients.
- Redesign SP program and Simulation center webpages to reflect single umbrella of operations; update signage and improve awareness of centralized simulation activities and standardize operations in alignment with SSH accreditation best practices.
- Develop Simulation Center Showcase event for fundraising, in concert with Upstate Foundation to position the center for a high-profile endowment.

### **Interprofessional Education (IPE)**

- Hire and onboard a new Director for IPE following departure of previous Director.
- Undertake an inventory of existing IPE activities on campus that are not run through the IPE office.
- Explore opportunities for more active engagement of students in IPE experiences.

### **Other Projects**

- Provide continued support and expansion of microcredential offerings to the Upstate community. Work with the Office of the Registrar to include microcredentials on student transcripts and Medical Student Performance Evaluation (MSPE) letters provided to residency program directors- an honest and objective summary of a medical student's experiences and academic performance. Present lessons learned about microcredentials in Academic Medical Centers at the AAMC Annual Meeting Nov 2023.
- Provide support to expand the College of Medicine's Exceptional Teacher Program to recognize more residents, to include monthly recognition of both a faculty member and a resident.
- Evaluate the infrastructure to sponsor small health science pipeline programs to Upstate colleges and workforce.

## STUDENT AFFAIRS

**Julie White, PhD – Vice President for Educational Services and Dean of Student Affairs**

The Division of Student Affairs is comprised of many functions that share a passion for working with students to achieve *their* goals. We make this happen by providing services and resources, partnering with faculty, meeting students where they are, and realizing the potential of our employees. This commitment to our students begins prior to admission and extends beyond graduation. The offices in the Division are: Admissions; Student Success/Academic Support Services; Multicultural Affairs and Student Inclusion; Disability Services; Campus Activities; Judicial Affairs; Housing; Student Counseling; Registrar and Student Data Systems; and Financial Aid. Additionally, Student Affairs is responsible for campus events such as New Student Orientation, Match Day, and Commencement and we attend to student needs related to hunger, travel and finances.

### 2022 – 2023 Accomplishments

#### Admissions (all four colleges)

<ul style="list-style-type: none"><li>• Total Applications: 7,555</li><li>• Total Accepts: 901</li><li>• Total Matriculants: 676</li></ul>	<ul style="list-style-type: none"><li>• Total Female Matriculants: 433 (64%)</li><li>• Total Black Matriculants: 77 (11%)</li><li>• American Indian Matriculants: 7 (.01%)</li><li>• Hispanic Matriculants: 58 (0.09%)</li></ul>	<ul style="list-style-type: none"><li>• NYS: 524 (78%)</li><li>• Downstate: 168 (25%)</li><li>• Upstate: 85 (13%)</li><li>• Central NY: 265 (39%)</li><li>• Rural: 116 (17%)</li></ul>
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#### Registrar

- Ensured integrity of the academic record for 1,722 students
- Registered students in 2,835 courses
- Graduated 448 students

#### MD Residency Match

- 175 Student Participated
- 92 entered the primary care specialties comprised of: internal medicine (22), pediatrics (20), family medicine (6), medicine (18) and obstetrics and gynecology (6)
- 98 students remained in New York State.
- 38 students remained in Syracuse: 31 at Upstate University Hospital and seven at St. Joseph's Health

#### Financial Aid

- Processed 930 FAFSA applications
- Administered 1,058 grants/scholarships totaling over \$9M
- Administered 1,474 loans totaling over \$37M
- Presented 23 Financial Literacy programs for current, accepted, and prospective students
- Conducted 570 individual financial aid counseling sessions

#### Academic Support

- Conducted 910 individual meetings with 353 unique students
- Offered 42 skill building workshops
- Facilitated 883 tutoring sessions for 120 unique students

#### Activities and Engagement

- Oversaw 325 programs facilitated by 79 student organizations
- Trained and advised 491 student leaders
- Offered 29 social and recreational programs
- Offered 18 multicultural programs

### **CSTEP (Collegiate Science and Technology Entry Program)**

- We continued to support 160 students through our NYS CSTEP grant.
- Support offered included academic counseling, 1:1 advisements, academic resources, and financial assistance for students participating in research, internships, and clinical rotations.

### **Basic Needs and Food Insecurity Initiatives**

- Provided ~2,000 meals to ~100 students
- Paley's Pantry served 108 students regularly
- Offered special meals over four-week period during Ramadan
- Partnered with the Faculty Student Association on our new Anti-Hunger "quick bites" initiative
- Partnered with FSA on a transportation insecurity program for students

### **Disability Services**

- Conducted 151 individual advisements with 61 unique students
- Ensured accommodations for 103 students registered for services
- Conducted 11 workshops for students, faculty, and staff

### **Student Counseling Services**

- Facilitated three suicide prevention programs with 55 student participants
- Facilitated 14 stress/wellness workshops with 170 participants
- Conducted 10 support groups (95 sessions) with 55 student participants
- Conducted individual therapy with 240 students for a total of 2,648 sessions

## **Student Affairs: Plans for the 2023-2024 Academic Year**

### **Admissions**

- Complete comprehensive strategic enrollment management plan for each college/program
- Expand use of our Slate CRM, specifically campaigns to increase yield
- Establish admission dashboards to reflect real-time enroll funnel insights
- Develop and execute an "One Upstate" strategy to raise awareness of our medical university/programs in Central New York
- Using predictive analytics tools to optimize recruitment scholarship distribution
- Revamp admission workflow to provide a more seamless, "applicant centric" experience

### **Registrar**

- Develop and display a new academic calendar accessible by college and program
- Implement new Customer Relationship Management program to streamline communications and empower students and advisors to provide timely feedback and interventions
- Improve process for course registration and curriculum tracking

### **Student Data Systems**

- Implement new on-line bookstore integration
- Ensure inclusive practices across technology platforms relative to genders and pronouns

### **Academic Support**

- Implement new CRM for tracking student progress
- Intentionally and closely monitor/support students identified via admissions process as needing support

### **Financial Aid**

- Streamline/expand financial literacy education and debt management priorities for students in all colleges
- Collaborate with OCC and SUNY ESF on the White House initiative, led by the National Partnership for Student Success, to increase the number of SUNY students volunteering in the Syracuse City School District as tutors, mentors, and postsecondary transition coaches via work-study

**Disability Services**

- In response to exponential growth in the number of students registering with the service, add FTE, purchase needed assistive devices, and create a testing center

**Student Counseling**

- In response to student need, expand clinical capacity and “after-hours” service via additional personnel and a web/tele-based platform
- Provide additional support for international and DACA students

## ALAN AND MARLENE NORTON COLLEGE OF MEDICINE

**Lawrence Chin, MD, FAANS, FACS** – *Dean, Norton College of Medicine*

The Norton College of Medicine under the leadership of Dr. Lawrence Chin continues to pursue its mission of educating and training physicians for New York State with an emphasis on Central New York (CNY). Our vision is to transform and improve healthcare for all by combining cutting-edge education with research and innovation, while delivering equitable and compassionate care. Last year we received a transformational naming gift of \$25M from Class of 1966 alumnus Alan Norton. This gift allowed us to immediately endow aspects of the educational curriculum that will provide a lasting impact on how we educate our future medical students. We currently have 720 students enrolled at our medical campuses in Syracuse and Binghamton, including our Public Health program. There are over 700 residents and fellows training in 52 accredited programs alongside 837 full-time and part-time faculty members. These numbers are the highest ever for our school.

### **Education Innovation**

The work of the past few years has resulted in the launch of our redesigned curriculum in Fall 2023. Every phase of the curriculum has been improved and several new courses have been added. The structural changes include reducing the preclinical course time (Phase 1) from two years to 18 months. This allows the clinical clerkships (Phase 2) to start 6 months earlier and gives our students more clinical experience and time for electives. This earlier start also allows select students to complete their educational requirements in three years. The three-year program (3 YP) is designed to encourage students to practice in CNY by combining medical school, known as undergraduate medical education, (UME) with acceptance into an Upstate residency program, known as graduate medical education (GME). This accomplishes one of the initiatives to begin integrating UME/GME, thus establishing an educational continuum through both phases of medical education. Currently eight students are enrolled in the 3 YP and nine Upstate residency programs are potentially taking students. In future years we plan to increase the numbers of students in the 3 YP. A new dual-degree program this year is the MD/MBA in collaboration with the SU Whitman School of Management. Three students have started study in this program.

Curricular innovation is strong in the updated Phase 1 curriculum. In addition to the traditional organ-based units, three new longitudinal courses were introduced and existing courses were refreshed. The Longitudinal Clinical Preceptorship (LCP) places new first year students directly into a clinical outpatient setting where they work one-on-one with a faculty physician and their office. This provides critical early exposure with patients and families and improves communication skills. The students can practice history and physical exam skills and receive long-term mentorship from Upstate faculty. Lastly, it emphasizes the interprofessional aspect of modern healthcare by exposing students to the roles of office staff and Advanced Practice Professionals (NP, PAs). Implementation of this course represented an extraordinary effort between UME administration, staff, and faculty with nearly 180 preceptors identified from academic and community physicians. The second new course is a longitudinal Brain and Body course that integrates the nervous system into all the different organ units. The last longitudinal course is Health Systems Science (HSS), which is a week-long course that runs in a designed break between each organ unit. HSS examines critical issues that impact health care and society such health equity, epidemiology, physician advocacy, and bioethics. A greater emphasis on reinforcing basic science concepts and residency preparation will be part of the new Phase 2 offerings.

A stronger emphasis on active learning is a part of all courses taught at the Norton College of Medicine. Numerous studies support the use of active learning including small group and team-based approaches for improving engagement and retention. Several faculty development courses have been offered to help our educators transition from a lecture-based curriculum to one that emphasizes active and experiential learning.

### **Admissions and Advising**

We had a record number of applications (5,448) that formed a 2023 matriculating class of 174 medical students with 61% women, which is the highest percentage ever. URiM (underrepresented in medicine) students represented 26% of the class. Rural students comprised 16%, and 23% of all students were from out of state. The class is one of our strongest academically with a Science GPA of 3.67 and average MCAT of 510. We currently have 15 Upstate Accelerated Scholar (UAS) programs, which are BS+MD partnerships where students are guaranteed future admission to Upstate if they fulfill certain requirements, and they do not have to take the MCAT. AMSNY has increased their support of diversity pathways, which includes our MedTech Scholars and now we have obtained new support for the MPH scholars. As we increase enrollment, we are also strengthening our academic advising by adding staff and improving our knowledge of student outcomes with appropriate interventions.

### **LCME Accreditation**

The NCOM is fully accredited by the LCME and compliant in all twelve standards. Our most recent status report was submitted in August 2022 and we have only one standard (student advising) that requires monitoring. The next full site visit will be done during the 2027 academic year. Based on information from our last Graduate Questionnaire (GQ) we added more staff and attention to student counseling and advising. The Learning Communities (LCs) benefited from standardized scheduling and follow up to ensure that all students benefitted from both basic science and clinical advisors. The new GQ results showed that student satisfaction in these areas showed improvement.

### **Diversity, Equity, and Inclusion**

The NCOM has identified department diversity advocates for each of the 26 departments who are tasked with creating individualized reports and plans to increase diversity at all levels of the college.

### **Undergraduate to Graduate Medical Education Transition**

We had 170 graduating medical students enter the Match this year with a 100% residency match rate. Over 50% are entering a primary care specialty with nearly 50% staying in NYS and 25% staying at Upstate to train.

### **Faculty Development**

We were able to return to an in-person faculty development course and had 35 participants in the annual Upstate Faculty Development Course, which had a focus on educational leadership.

### **Leadership Transitions**

Three new chairs were named in 2023 for Pathology, Medicine, and Neurosurgery. Current chair searches are being done in Radiology and Ob-Gyn.

### **Alumni**

The annual Alumni reunion weekend was held in October with very strong turnout. The 50-year Class of 1973 led the way with the most attendees.

### **Research**

The NCOM continued as the primary driver of research at Upstate accounting for \$45M in total research expenditures during 2023, which represented a 7% increase over 2022 and marked an eighth consecutive year of increases. Among the many highlights were new EIP scholars recruited in Ophthalmology.

Student research continues impressive gains as now 87% of medical students report performing a research project with a faculty member and 63% have authored a paper. We increased summer research scholarships from 13 to 16, and thanks to a gift from alumnus Mark Rogers, MD, we offered five partial tuition scholarships to students who would devote a portion of their MS-2 year to research. Over 500 funded projects are available to students. A medical student research microcredential is also available for students not enrolled in the MD/PhD program.

### **US News & World Report**

The NCOM ranks #50 in Most Diverse, #67 in Most Graduates Practicing in Medically Underserved Areas, #88 in Research, #92 in Most Graduates Practicing in Primary Care Fields, #94-124 for Primary Care, and #118 in Public Health.

#### **College of Medicine: Plans for the 2023-2024 Academic Year**

- Clinical recruitment in high demand specialties such as hematology-oncology, gastroenterology, cardiology, radiology, and anesthesiology.
- New program development with more community outreach from the Upstate Neurological Institute.
- Improved clinical research infrastructure with emphasis on new clinical trial recruitment in Cancer Center.
- New research recruits in Pharmacology, Biochemistry, Cell Biology, and Neuroscience.
- Research space planning as the next phase of research expansion to double Upstate research in the next 5-10 years.
- Expansion of Dean's Office staff to include a new recruitment specialist.
- Begin preparations for LCME self-study in the next year.
- Continue planning for the integration of the Department of Ophthalmology with the new School of Optometry regional extension.
- Continue planning for Binghamton regional campus.



## COLLEGE OF NURSING

**Tammy Austin-Ketch, PhD, FNP-BC, FAANP – Dean, College of Nursing**

Under the leadership of Dean Tammy Austin-Ketch, the College of Nursing (CON) has continued to achieve its established mission, vision and values. These steps have been possible through the actualization of priorities under the strategic plan that was collaboratively developed in 2018 (and revised in 2023) and subsequent internal objectives and plans to align with national standards. The CON offers the region's premier Doctor of Nursing Practice program, in addition to post-master's certificate level programs preparing Family, Pediatric, Adult Geriatric and Psychiatric Nurse Practitioners, and an upper division, fully online Bachelor of Science program.

**Program Updates:** The College of Nursing is immersed in the transition from the traditional Master's level programs to the Doctor of Nursing Practice program as the standard for all Nurse Practitioner students. The Bachelor of Science-to-DNP program was also updated to reflect current national standards, with the first cohort of 23 students starting classes in Fall, 2022. While the target enrollment for the inaugural cohort was 30 new students, we were able to achieve 77% of the target through only word of mouth advertising of our new programming, demonstrating a strong interest in doctoral level programming in the College of Nursing. A newly updated Adult Gerontological Nurse Practitioner (AGNP-PC) program was approved by NYSED and SUNY and accepted its first cohort of students in Spring 2023 with a target cohort of five students, which the program easily met.

**Accreditation:** The faculty and staff have been working earnestly since July of 2022 to prepare for our April 2024 onsite accreditation visit from CCNE for our baccalaureate, Master of Science and post-graduate nurse practitioner certificate programs. It is expected that the self-study and all accompanying information/appendices will be ready to be sent to CCNE no later than 12/31/2023.

**Grant Activity:** The College of Nursing was granted a one year no-cost extensions for two of the New York State High Needs Nursing Grant Funds. In late 2022, the SUNY High Needs Impact fund director asked Upstate CON to write a 3rd grant to assist in providing clinical supports and placement for the AAS nursing program at SUNY Canton. With full implementation of this approved and funded High Needs grant, UMU CON and the UMU hospitals will provide 2 part-time clinical faculty to supervise up to 30 SUNY Canton students. The number of SUNY Canton students supported by Upstate's various grant responsibilities represents 50% of the annual clinical cohort from Canton. The College of Nursing continues to work on multi-year HRSA-funded grant in opioid and substance use disorder as well as primary care, which will end on 08/31/2023 having met all of its target activities and key metrics despite COVID. In addition, the CON continues to be a sub-awardee on a partnership with Bassett Hospital in their HRSA-funded Nurse Practitioner Residency program. The College of Nursing has also been the recipient of a new 4-year Nurse Practitioner Residency Grant (~\$2.8 million) which will collaborate with UMU Department of Family Medicine, Onondaga Nation, Liberty Resources and East Hill Medical FQHC. Funding started on 09/01/2023.

**Scholarship:** Most College of Nursing faculty and staff disseminated their work at the national and international levels, including abstract, poster, and publications. 7/15 (47%) full-time faculty published a total of 14 papers or book chapters; many presented papers and posters.

**Awards:** Dr. Kathryn Holliday and Dr. Jennifer Vaughn were awarded 2022 Academy of Upstate Educators (AUE) Awards, Professor Caitlin Nye received the 2023-24 Faculty Scholar's award as well as being a recipient of 2023 NLN Nursing Education Scholarship Award, Dr. Florence Mandebvu received the National Hartford Center of Gerontological Nursing Excellence (NGCGNE) award and Dr. Mary Catherine Forgea achieved her PhD.

**Personnel:** Through grant funding, the College of Nursing expanded faculty and staff roles to support ongoing plans to expand enrollment and support students. There have been 3 doctoral hires (2 DNP and 1 PhD), and 1 enrolled in doctoral program. Total faculty count as of July 31st, 2023 is 20, excluding the Dean.

**Board Certification Rates:** CY 2022 board certification pass rates above the national average:

Family Nurse Practitioner (FNP)	National average: 88.66%	Upstate: 91.4%
Psychiatric Mental Health Nurse Practitioner (PMHNP)	National average: 86.29%	Upstate: 91.7%
Post-Graduate Certificates – PMHNP	National average: 91.05%	Upstate: 100%

**Community Service:** Students, faculty and staff of the CON were exceptionally active throughout the academic year in a variety of professional and community volunteer service activities, from working with the homeless population and conducting an annual gift drive to support local charities and the efforts of Team Upstate.

### College of Nursing: Plans for the 2023-2024 Academic Year

**Grants:** Complete all three SUNY High Needs Nursing Grants awarded to the CON.

- **Metrics:** Meet grant key performance indicators as established by grant program.

**Scholarship:** The CON will make a concerted effort to continue to grow and showcase the scholarly work at the CON. The CON-sponsored faculty scholar program will provide additional support to research and scholarship endeavors.

- **Metrics:** Increase numbers of CON faculty who will present scholarship at conferences and in print by 10% to 12 CON Faculty in AY23-24. The CON faculty scholar will be selected and the approved, supported project will commence and conclude in AY 23-24.

**Accreditation:** Successfully complete onsite CCNE accreditation visit in April 2024 for the BS, MS, and PMCT (Post Masters Certificate) programs.

- **Metrics:** Successfully complete all aspects of the CCNE accreditation visit for the BS, MS, and PMCT programs.

**Faculty and Staff Recruitment:** Maintain full complement of faculty, staff, and grant positions with qualified candidates.

- **Metrics:** Successfully recruit against any vacancies as they occur in a timely fashion. Navigate changing landscape of employee recruitment through innovative methods supporting the needs of the CON.

**Enrollment and Persistence:** Successfully graduate the final cohort of MS students from the FNP and NPMHNP programs and the first cohort of AGNP-PC students in May 2024. Attain BS-DNP cohort targets of 30 students admitted for Summer 2024. Increase enrollment in the RN to BS program through nurturing of current pipeline agreements and innovative programming development with CCC.

- **Metrics:** Matriculate the cohort of 30 students in the BS-DNP program to enter Summer 2024. Increase matriculated students by 10% in the RN to BS program and identified pipeline agreement students for the upcoming academic year. Maintain a persistence to commencement rate of 90% in the existing MS and PMCT programs.

**SUNY collaborations:** Recruit into Upstate's DNP program offered remotely in partnership with SUNY Canton's College of Nursing.

## COLLEGE OF HEALTH PROFESSIONS

**Katherine Beissner, PT, PhD** – *Dean, College of Health Professions*

The College of Health Professions offers educational programs leading to professional licensure/certification in a range of allied health fields and biomedical research, and two post-baccalaureate medical college preparatory programs. In 2022-23, 127 undergraduate and 225 graduate students were enrolled in the College's 12 programs. With 34 full-time and 4 part-time core faculty, 25 adjunct faculty, and a host of clinical preceptors at our 300+ affiliates, students are well-supported in these educational programs.

The College welcomed a new faculty member in the Department of Physical Therapy and a new faculty member in Cardiovascular Perfusion. We anticipate concluding searches for the two department chairs, Physical Therapy and Clinical Laboratory Sciences, and Physician Assistant faculty member this fall. The College is now fully staffed with department program assistants.

Consistent with other colleges across the country, CHP has been challenged to fill its undergraduate programs, predominantly due to the lack of visibility of many allied health professions. To promote enrollment and increase awareness about the healthcare professions, CHP expanded its program marketing and social media strategies. The College also offers career awareness and academic pathway programs that use a problem-based approach to expose learners at the high school and early college levels to the range of potential health careers.

Other efforts were directed by the CHP strategic plan, which was revised in 2022 to align with the revised Institutional plan. Major emphases in 2022-23 include the following:

**Improve Quality and Enhance Faculty, Staff, and Learner Experience** - The CHP Faculty Mentor Project launched August 2022 with 18 participants including 9 CHP mentees, 7 CHP mentors, and 1 mentor each from College of Medicine and College of Nursing. Initial program outcomes include reports of professional and personal satisfaction, positive mentorship for teaching and assessment strategies and exciting collaborative scholarship including a joint mentor/mentee NIH grant submission. Plans for 2023-2024 include continued program development and management with a call for new mentees/mentors in August 2023.

To address potential concerns with burnout and job satisfaction the college arranged to have Kaushal Nanavati, MD, Assistant Dean for Wellness in the College of Medicine, conduct focus group sessions to explore faculty and staff satisfiers and dissatisfiers. Held in June 2023, these sessions will be followed up with discussion and action in the 2023-24 AY.

### **Enhance Innovation**

In 2022-23 13 faculty in the College of Health Professions published 29 articles in peer-reviewed journals, representing a strong record of sustained scholarship for the college. In June 2023 the College hosted its first annual Interprofessional Research Conference, showcasing work done across the college and highlighting multiple types of scholarly work.

### **Increase Diversity, Equity, Access and Inclusion**

In 2022-23 34% of the students in the CHP identified as non-White (14.2% Asian, 10.2% African American/Black, 6.5% Hispanic, 3.1% not reported), including 38.6% of graduate students and 26.8% of undergraduates. The College enrolls predominately NYS residents (95% of students) of traditional college age (53.5% aged under 25 years).

Despite outreach efforts the college continues to be challenged to recruit a diverse applicant pool for faculty positions. Currently 9% of full-time faculty and 25% of staff identify as non-White and non-Hispanic.

### **Grow Programs and Community Partnerships**

The CHP clinical partnership network was expanded with finalization of 24 new Affiliation Agreements.

Partnerships with community colleges and transfer institutions were strengthened with a refocus of the successful Jump Into Health Care (JIHC) summer program, enrolling early college students for the 5 week program. As a result, we have a student enrolled in the Medical Biotechnology program and two more intend to apply. Our partnership with the Syracuse City School District continues, as high school students joined JIHC for the final week of the program.

Anticipating the renovation of teaching spaces, the Clinical Perfusion program enrollment was increased to 16 students for entry in fall 2023. This number is exceeded by the identification and subsequent recruitment of an internationally prepared perfusionist, who will join our program to earn US credentials.

The MS in Applied Behavior Analysis is now a one-year program that will provide students with opportunities to engage in research and ability to enter the workforce faster.

### **Optimize Technology, Facilities and Support Services**

The Silverman Hall renovation works continues, home to multiple College departments. Move-in will be staged beginning with the Cardiovascular Perfusion and Respiratory Therapy classrooms and labs in October 2023.

## **College of Health Professions: Plans for the 2023-2024 Academic Year**

### **Increase Diversity, Equity, Access and Inclusion, and Grow Programs and Community Partnerships**

With sponsorship from Key Bank, CHP is taking the lead on a new pathway program for high school students from the City of Syracuse. Jump Start Your Health Career program is a Saturday program for high school students that runs from October 2023 – June 2024. This will be followed up with the 5-week JIHC program in Summer 2024. Because the focus of these programs is on students from the City of Syracuse, we will recruit a cohort that is underrepresented in medicine and health care, thereby contributing to the College's priority on increasing diversity.

### **Improve Quality and Enhance Faculty, Staff, and Learner Experience**

We will follow up on recommendations coming out of the summer faculty/staff focus group sessions. Notably, a concern identified as a dissatisfier for faculty (insufficient student support services) will also address student concerns. The College is working in collaboration with Student Affairs to identify and reduce deficiencies in this area.

### **Enhance Innovation**

The Assistant Dean for Research, Hani Aiash, will focus on work with individuals or small groups of faculty who are novice researchers, with the goal of helping them develop research questions and research agendas. That work and other ongoing research will be presented at the 2nd Annual CHP Research conference in June 2024.

### **Optimize Technology, Facilities and Support Services**

The focus will be on the successful move into Silverman Hall and increasing the use of simulation in education.

## COLLEGE OF GRADUATE STUDIES

**Mark Schmitt, PhD** – *Dean, College of Graduate Studies*

This Fall we matriculated our largest class ever into the College of Graduate Studies with 32, bringing our student count to 143 across seven programs of study. This is also the largest number in our college's 72-year history. The increase in size has been driven by several years of continual 10% increase in research expenditures on campus, despite the COVID pandemic. Graduate students have long been the drivers of research on campus and they continue in that role. On average, each PhD student's research is published in 4.7 papers and each study is cited by more than 30 other papers on average; predictably, these students are highly sought after for competitive positions upon graduation.

The CoGS also organizes the following:

- Annual Biomedical Sciences Retreat
- Annual Beyond the Doctorate Day with the Office of Graduate Medical Education
- Annual Student Research Day
- Annual MD/PhD Alumni Distinguished Lecture
- Annual Graduate School Distinguished Alumni Talk

As indicated above, CoGS matriculated 32 students into the PhD program in 2023 and four into the MD/PhD program, and 3 MS students. GPAs and MCAT scores for matriculated students continue to stay high, with applications reaching another all-time high of nearly 300. This will be the third year we made the GREs optional for admission, following many other schools in the face of the pandemic. All indications point to no diminishment in quality of students after this change.

We have continued moving back to in person classes, with all courses, now being more than 75% in person. We unfortunately now struggle with available classroom space across the board.

**Summer Undergraduate Research Fellowship:** The SURF program, which was cancelled three year ago, has returned in strength with 20 students over the summer. Students were housed in SUNY ESF dormitories and without any issues. We were able to add extra students with financial support from both LeMoyne College and Binghamton University and the Upstate Cancer Center.

**PREP Program:** The college initiated a new Postbaccalaureate Research Education Program (PREP) in 2020 and has continued that effort. The goal of this year-long program is to develop and prepare students from diverse backgrounds for PhD and MD/PhD programs by immersing them in biomedical research. This year we have four students in this program that are spread across basic science and clinical departments. While participants devote most of their time to hands-on bench research, approximately 25% of their time is devoted to skill development; taking courses, attending workshops and seminars and other professional development activities.

**Application Overhaul:** Our application overhaul continues, and our new university wide director of admissions has been a great resource. We have been plagued by turnover in our college-specific admission person and are searching for a replacement.

**Career Development Workshops** were enhanced and improved, leading to another strong series of workshops. Most workshops have been moved back to in person and we have continued to step up our offerings with at least two every month. Alumni have been a wonderful resource with these, helping students see the bigger picture of the world after they graduate.

**NIH Grants:** Several students applied for NIH F30 and F31 grants with continued success. Indeed, last year three of our students were given the SUNY Chancellor's GREAT award (Graduate Research Empowering and Accelerating Talent) for securing federal funding for their graduate studies.

**Nanocourses:** We have continued to develop a total of 27 nanocourses in the graduate school. These have become very popular with faculty and students. Each half credit course covers a new or emerging topic or techniques. These have often developed into full size courses in subsequent years.

**3-MT Competition:** The college ran a three-minute thesis competition in the Spring Semester. Ten students gave a less than 3-minute presentation geared towards the lay public as to what their thesis project was about. It proved to be a great event and an incredible learning event for all the participants.

**Faculty Recruitment:** Over the 2022-23 academic year we added nine new faculty and now have a total of 111, giving us a student-to-faculty ratio of under 1.3.

**Student Mental Health:** This has continued to be challenging for our students. Campus wide burnout surveys put our students higher than every other student or employee at the institution. Indeed, MD/PhD students appear to be at the highest level of our different programs. We continue to promote resources available to students including: student counseling; low-cost meals; food bank; social events and workshops. Our offices are open M-F during regular business hours to encourage student to visit when needed.

#### College of Graduate Studies: Plans for the 2023-2024 Academic Year

- Implementation of new curriculum changes for our students. This includes new Experimental Design and Statistics course along with a revamping of our Foundations course that all students take their first semester.
- Resubmission of an R25 mechanism to the National Institutes of Health to support the PREP Up program. In the first round the proposal was scored favorably but not funded. It is hoped that resubmission will bring us into the fundable range.
- Continue to maintain staff and build a strong and cohesive team.
- Continue our paper reduction efforts to move most things online and digitally.

## UPSTATE FACULTY COUNCIL

**Kerry Green Donnelly, MBA, R.T.** – *Chair, Upstate Faculty Council*

The mission of Upstate Medical University is “To improve the health of the communities we serve through education, biomedical research, and patient care.” Among the factors that lead to our success meeting our mission as an academic health center is a commitment to collaboration and engagement across the entire university. Reflective of that commitment is a decade-long effort to build a stronger and increasingly more effective system of shared governance on campus. We are proud of the accomplishments of this effort and submit this summary of accomplishment for the past academic year, and a forecast of future efforts.

### **Achievements of the Past Year**

- The Chair of Faculty Council attended and actively participated in a majority of bi-weekly meetings of the University Executive Committee and the quarterly meetings of Upstate Council, the two main advisory boards convened by the President.
- The Chair of Faculty Council collaborated with the President to set the agenda for each monthly Faculty Council meeting.
- Faculty Council has continued to engage faculty from all four colleges, as well as professional staff for SUNY Senate positions. Maintaining a balance between faculty and professional staff participation. Faculty Council Operations Committee conducted successful nomination and election proceedings, indicating a strong participation.
- The Task Force on Issues Facing Undocumented Members of the Upstate Community continued its work to assist undocumented students and staff of Upstate Medical University. The Task Force presented two resolutions for consideration, Resolution to join the Presidents' Alliance and Resolution to establish an Immigrant Student Success Manager position. The Faculty Council approved both resolutions, which have also been endorsed by President Dewan.
- Upstate Medical University received the SUNY Campus Shared Governance Award for 2022-23 academic year at the UFS Spring Plenary held on our campus. The award recognizes a campus for outstanding achievements in shared governance. The award defines Shared governance as, “a formal system of inclusive and participatory decision-making through established and formally agreed upon procedures and structures”. Faculty Council, SUNY Senators, College Assemblies and Upstate Administration strive for transparent processes, inclusive advisory groups and collaborate decision making. The recognition of these efforts was well received.

### Upstate Faculty Council: Plans for the 2023-2024 Academic Year

Faculty Council Executive Committee established several goals for the next academic year.

- A final report from the Joint Taskforce on the Use and Oversight of Artificial Intelligence and Machine Learning Technologies at SUNY Upstate Medical University will be presented to Faculty Council and Administration in Fall of 2023. The Task force was convened in March of 2022 at the request of Dr. Lynn Cleary, Vice President for University Academic Affairs, and Kerry Greene-Donnelly, Chair of Faculty Council. The taskforce was composed of faculty students and staff from all four colleges, the library, University Administration, as well as several members from SUNY Downstate. The mission of this Joint Task Force is to perform a cross-cutting study of current and potential future state of AI/ML use on our campus as well as at peer institutions, and provide forward-looking guidelines that will support proper, ethical, and beneficial use, and means to identify, discourage, and adjudicate improper, unethical, or malicious use of AI/ML technologies at all levels of our University. Implementation of the summary report will be a major area of focus for the remainder of the 2023-24 academic year.
- Increased advocacy efforts through letter writing campaigns regarding funding for SUNY in the State budget process and funding for Upstate Medical University in the SUNY budget process. The initial effort was to distribute templates letters to faculty and staff interested in supporting advocacy efforts, with over 400 letters being sent in our first effort. The 2024 budget process is aimed at promoting the benefits of advocacy, with greater participation anticipated.
- Sustained or increased participation in Faculty Council, UFS Senate and Council Committees meetings is a goal for 2023-2024. Continued outreach efforts will take place, as well as hybrid meeting to allow for the greatest participation.



## RESEARCH

David Amberg, PhD – Vice President for Research

### Research Financials/Metrics

After a 3-year period of rapid growth in research expenditures, the research enterprise continued to grow 5% in fiscal year 22/23 closing out the year for a total of ~\$44.7M; a 6% increase in direct costs and 3% increase in indirect costs. This year, 147 basic and translational research faculty and 58 clinical research faculty received 143 awards and submitted 268 grants for a total ask of over \$212 million (direct plus indirect costs) and 119 sponsored programs agreements were completed. A total of 125 clinical trial contracts were executed, a 67% increase over last year. Currently awarded grant dollars total over \$206 million, an ~\$5M increase from last year. Upstate faculty published 1017 peer-reviewed publications. A key component of our research growth is clearly large increases in the grants submitted from 75 in 2020 to ~225 in 2023. Overall, our researchers are incredibly productive: counting all 220 FTE who are involved either full-time or part-time in research, the average expenditure was **\$184,000/FTE**; when only the basic science faculty, who tend to be full-time researchers, were considered, the average expenditure was **\$265,000/basic science FTE**.

### Entrepreneurship and Innovation

Upstate continues to see growing interest and activity from our faculty in innovation and entrepreneurship to bring their scientific advances to the marketplace. Fiscal year 22/23 saw 18 IP disclosures, 18 patents filed, 7 patents issued, and 1 new company formed (Azimuth Biologics Inc.). IP revenue for fiscal year=\$665,831.

The Central New York Biotech Accelerator (CNYBAC) continues to breed success by driving biotech innovation in CNY with a current annual economic impact of \$38.8M. There are currently 15 companies located within the CNYBAC and 19 virtual clients; current clients continue to require expansion space and there is a long waiting list for new companies to obtain space within the incubator. The Medical Device Innovation Challenge, which mentors very early-stage companies in the medical device space, is seeing a tremendous growth in interest with 88 applicants this year alone. In the coming year, we expect our anchor client and Start Up NY company Quadrant Biosciences to go public, its valuation very well may make it our first “unicorn” start-up.

- Significant Equity Interests:
  - Quadrant Biosciences: Current valuation=\$250M, equity interest=5.24%=\$13.1M. Expected to go public April 2024; value then may be \$1B, equity interest=\$52.4M.
  - Zetagen: Current valuation = \$150M, equity interest=2.49%=\$3M

### Upstate Research in the News

- Dr. Stephan Faraone, PhD, SUNY Distinguished Professor named 80th best scientist in the world in all fields: <https://research.com/scientists-rankings/best-scientists>
- Dr. Joseph Domachowski featured on National NPR for his groundbreaking work on an RSV vaccine for small children: <https://www.npr.org/2023/02/28/1160158005/a-promising-rsv-drug-could-soon-be-available-for-babies>
- Quadrant Spin-off “As You Are” telehealth program for autism featured on the Today Show: <https://www.today.com/video/autism-virtual-clinic-brings-new-hope-to-families-in-search-of-help-169876037503?search=autism>
- Dr. Saravanan Thangamani, PhD feature in the Atlantic for his work on tick bites in infectious disease transmission: <https://www.theatlantic.com/science/archive/2023/07/tick-bite-saliva-infection-spread/674804/>

### **New Research Faculty Hires**

There were 10 new research faculty hires, including:

- 2 new research faculty in Ophthalmology
- 3 new research faculty in Neuroscience and Physiology
- 2 new research faculty in Pharmacology
- 1 new research faculty in Psychiatry
- 2 new research faculty in Microbiology and Immunology/Center for Environmental Health and Medicine

### **New Technology and Research Core Facilities**

- SUNY Upstate Pathology Research Core (SPORE). High quality histology and digital pathology support core for both internal and external investigators.
- Acquisition of a SONY HS800S Cell Sorter in the SUNY Molecular Analysis Core. Enables neuroscience researchers to disaggregate brain-derived tissue into single cells for sorting and single cell 'omics/sequencing analyses.
- Upstate TEM Core. Transmission electron microscopy support and service for the Upstate community, outside academic and industry researchers.

### **Strategic Partnerships and Initiatives**

- **Lotte Biologics:** In discussions to establish a satellite of the CNYBAC on their campus in building 23 for additional incubation space and “graduation space” for successful CNYBAC clients.
- **Cornell Life Sciences Bio-High Performance Computing Center:** Partnering to obtain funds to upgrade hardware and for this facility to meet our research HPC and data storage needs.
- **SUNY Binghamton:** Joint MOU for research collaboration with the Watson School of Engineering. Activities include jointly funded pilot grants, joint seminar series and a joint EIP cluster hire in regenerative medicine. Discussions are beginning on research collaboration with the Binghamton School of Pharmacy.
- **Quadrant “Project Silver Lining”:** Quadrant already has the 4<sup>th</sup> largest biobank in the world and through their “As You Are” platform, they are biobanking samples from a significant population of autistic children in the U.S. Upstate is under discussion to partner with Quadrant to further expand their biobank with residual blood samples from our pathology lab.
- **Upstate Biotech Ventures:** We are establishing an Upstate financed venture fund to accelerate the development of start-up companies founded by our faculty and staff, companies licensing Upstate IP or companies working with Upstate faculty. We submitted a Federal Dept. of Commerce Build to Scale grant to support the management costs of the fund with Excell Partners. Submitted a NYS Empire State Development Community and Regional Partnership grant for a \$3M match, total initial fund amount=\$6M. Target fund size is \$10M, additional funds to be raised from Upstate friends and alumni.
- **CNYBAC Expansion:** An 8 floor, 100,000sq/ft expansion of our incubator to include headquarters for Quadrant Biosciences, the Upstate Autism Center of Excellence, and 2 floors of additional wet-lab + offices incubation space.

### Research Goals: Plans for the 2023-2024 Academic Year

- Obtain estimates and begin to pursue external funding for the CNYBAC satellite on the Lotte campus.
- Formalize the biobanking/sequencing joint partnership with Quadrant Biosciences; Project Silver Lining.
- Complete EIP searches for Alzheimer's and Regenerative Medicine.
- Continue to explore a joint project with SUNY Binghamton's Watson School of Engineering to jointly develop research projects targeted to the development and successful implantation of human islet organoids.
- Continue to advance research collaboration opportunities with the SUNY Binghamton School of Pharmacy.
- Resolve consent at autopsy for biobanking to develop an Alzheimer's/neurodegeneration biobank.
- Change the department name from Department of Research Administration to The Department of Research and Innovation.
- Hire and onboard new staff: an additional grants administrator in pre-award, a Cancer Center dedicated clinical trial administrator in the Clinical Trials Office, a deployable CRA in the Clinical Trials Office, and a Research Data Analyst in the Research Development Office.
- Implement a one credit course, to be offered across colleges, on the use of the TriNetX platform for clinical research.
- Continue discussions with Dr. Bliss-Moreau on the potential to develop a non-human primate research center in Central New York.
- Submit a collaborative SUNY-wide ARPA-H proposal with Upstate as lead; target area Autism.

## UPSTATE UNIVERSITY HOSPITAL SYSTEM

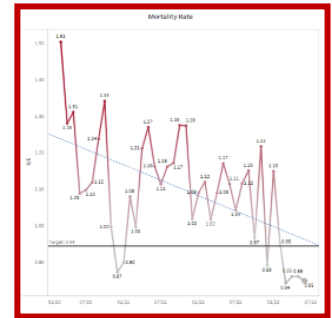
**Robert Corona, DO, CPE, MBA, FCAP, FASCP – CEO, Upstate University Hospital**

The Upstate University Hospital system consists of University Hospital (Downtown), Upstate Community Hospital, Upstate Golisano Children’s Hospital, and Upstate ambulatory services. It is led by an officer team including the CEO Robert Corona, DO; CFO Stuart Wright; CMO Amy Tucker, MD; CNO Scott Jessie; CAO Nancy Daoust; CIO Mark Zeman; and COO Marylin Galimi. Together, they have focused on the strategic pillars of: Quality of Care, Upstate Experience (employee and patient), Innovation, Sustainability and Growth. These pillars have guided the hospital strategy before the COVID pandemic and now remain relevant as we continually adapt to our new environment.

### Quality of Care

#### **Mortality Reduction**

- Upstate has been successful in reducing risk adjusted mortality from a rate of 1.51 to consistently under 1.00
  - Aggressive performance improvement efforts in Clinical Documentation Improvement (CDI), End-of-Life care, Transfer Center Performance and Mortality Quality Review, achieving a risk adjusted observed/expected (O/E) mortality rate to as low as 0.85.



#### **Pharmacy Transition of Care Team Reduces Medication Errors**

- Pharmacy team identified and avoided 3,200 high-risk medication errors.
- Achieved goal of full medication review for 100% of our dual-eligible (Medicaid & Medicare) patients upon admission and at discharge.

#### **Glucommander Project Roll Out**

- Implemented Glucommander blood sugar management software for all inpatient areas IV and sub Q dosing
- Significant reduction in hypoglycemic events

**Formalized the new Ambulatory Quality Governance Committee** that leads ambulatory and faculty quality reporting efforts across the campus. Key focus areas are to improve patient access and to standardize priority, high-level policies, and procedures.

**US News and World Neurology & Neurosurgery overall ranking has improved substantially from 2021 – 2023.** Progress made over past three years with favorable net change of 12 pts. The 30-Day Survival score increased from poor to favorable, largest contributor to recent overall score increase.

### Upstate Experience

#### **Connect Care Clinic Expansion**

- Established in 2022 to improve the healthcare quality and access to our patients by shifting low acuity hospital-based healthcare to the outpatient setting.
- The Connect Care Clinic has saved 214 bed days per month, and significantly reduced the number of Medicine admissions under observation status by over 40%, and those for low-risk chest pain by over 60%.

#### **Established a Hospitalists Procedure Team with Point-of-Care Ultrasound (POCUS)**

- Deployed bedside ultrasound for each Hospitalist team to improve diagnostic accuracy, efficiency, and throughput.
- Started the POCUS Academy to train learners and physicians using the bedside ultrasound technology.

### Return of Nursing Shared Governance

- Shared Governance is a core principle of Magnet accreditation.
- Formative feedback is being utilized to improve our structure, make policy changes, celebrate work being done and meet the needs of all stakeholders: nursing leadership, bedside staff, non-bedside staff, and other members of the multidisciplinary team.

### Construction and completion of the Emergency Department (ED) canopy providing:

- Protection from elements for all EMS arrivals, new decon area with heated water, vehicle exhaust controls

### Construction and completion of the ED Triage and Fast Track area providing:

- A new ED triage space and five new treatment bays for fast track, low acuity patient care

### Cancer Center

- Implemented a leadership transformation plan to address substantial growth across multiple locations

### Patient Access Services

- 15% increase in Patient Satisfaction at the Community ED – “Helpfulness of First Person”

### Innovation / Technology

#### Drones

- The Air Upstate team began pharmaceutical delivery between the Upstate Retail Pharmacy and Upstate Community Hospital for Meds-to-Beds. Started test flights to patient homes. First institution in the US to use the RigiTech Eiger drone from Switzerland.

#### Robots

- The Autonomous Mobile Robot pilot program commenced in August 2022 with a single route between the downtown pharmacy and the Cancer Center pharmacy. Brought live 7 robots servicing Food and Nutrition, Pharmacy, Nursing, and Distribution across the two hospital campuses.

### Teletracking Capacity and Throughput software Implementation and Throughput Improvements

- Reducing bed days in the emergency department – with the utilization of auto dispatch of patient transport over the last fiscal year we have saved 66.9 days of ED bed time
- Reducing bed days for internal patient movement – with the utilization of auto dispatch of patient transport, since mid-June, we have saved 12.1 days of inpatient bed time
- Over last six months, emergency room boarding hours decreased from a monthly average of 11,100 to 6,723 which is a 39% decrease and average emergency room admissions per month has gone from 1,015 to 1,091 which is 8% increase

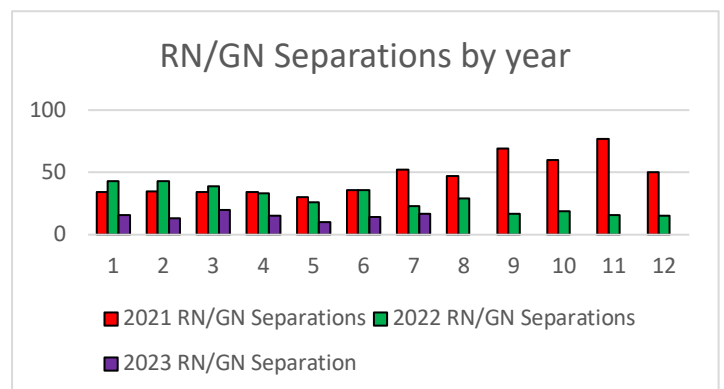
### Sustainability and Growth

#### Hiring YTD as of July 23

- Net positive 68 new RNs YTD; 173 RNs started; 105 RN separations
- 60.2 additional RNs hired but not started

#### Turnover

- RN turnover – 13.7% - lowest in last 31 consecutive months
- LPN turnover – 13.3%
- Unlicensed staff turnover – 31.1%



Achieved **Bee Campus USA accreditation** for our work with eliminating the use of pesticides and herbicides at Upstate, identifying native pollinator friendly plant species to be used in our landscaping plan.

**Opened the Nappi Wellness Institute, a LEED Silver and Well Certified building that houses multiple outpatient clinics** for our community in a healthier and more welcoming environment.

**Made significant financial investment in Child and Adolescent Mental Health services.** Will open the State's first and only inpatient program for children with autism and behavioral dyscontrol.

**Energy Management** team completed to date 21% of its goal of the NYS Build Smart 2025 campus energy reduction goal of 275,000 MMBTU (275,000,000,000 BTU) due by December 31, 2025.

#### **General Financial Services**

- Managed to a year-ending cash balance of nearly \$300 million.
- Beat budgeted bottom line loss by approximately \$42 million.
- Successfully reduced rates paid to staffing agencies (particularly nursing), achieving rate reductions in excess of 20% in many cases.
- Successfully submitted over \$120M in COVID-related FEMA claims.
  - Increased efficiency (FTE per AOB) by over 4%.
  - Despite staffing challenges impacting available beds and ED access, Upstate grew: OR Cases (inpatient and outpatient) by 20%; Total ED encounters by almost 6%; Clinic Visits by 3.5%

#### **Revenue Cycle**

- Days of Revenue Outstanding averaged 28.8 days for the Fiscal Year which is a 1.1 day improvement.
- CMI average improved from 1.81 to 1.83 for the Fiscal Year due to the continued positive work by the CDI/Coding departments.
- 2022 Medicare 340B claims rebilled yielding \$3.5 million.
- Over \$5M recovered in previously denied claims from various payers

#### **CDI: Query Process**

- Provided an additional \$3.4M in projected financial return in FY23.

#### **Utilization Management**

- **Internal Second Level Review:** Saved an average of \$300k annually by eliminating a contracted vendor and implementing an internal second level review program.
- **Denial Recovery Unit (DRU):** Maintained a 78-90% success rate on written appeals.
- **STAR Program:** (Review of surgical cases for accurate authorization) Achieved over \$5.7 million in additional revenue, exceeding FY23 ROI goal of \$4 million.

#### **Managed Care Contracting**

- **Largest Increase:** Fidelis/Wellcare had the largest increase 1/1/2023 with 103% of Medicare for IP and 107% of Medicare for OP.
- **Hospital At Home:** Currently, send eligible patients to our HAH program for the following payors: Aetna Medicare, Excellus Medicare, Fidelis Medicare, Humana Medicare, MVP Medicare, UHC Medicare

#### **Retail & Contract Pharmacy**

- **Revenue:** \$173 million in revenue with year over year growth of 34.6%; Contribution Margin: approaching \$50M
- **Prescriptions Filled:** 53% growth in prescriptions filled.
- **3rd Pharmacy Location Opened:** Nappi Health and Wellness Center

#### **Patient Access Services**

- 24% increase in collecting patient financial responsibility (Point of Service collections) prior to or at the time of service (2nd quarter 2022 compared to 2nd quarter 2023)

## University Hospital: Plans for the 2023-2024 Academic Year / FY 2023-2024

### Enhance Innovation

- Incorporate principles of a Smart Hospital throughout the institution
  - Autonomous machines (robots and drones)
  - Hospital at Home program
- Virtual Nursing discharge pilot program Fall 2023
- Patient Access Services
  - Implement advanced call center technology to improve caller experience:
    - Artificial intelligence to monitor call center agent performance.
    - Multi-modality call- back options for callers instead of waiting on hold (web, chat, text, phone)
    - AI driven chat bot to assist callers with routine requests (web, chat, text, phone)
  - Continue implementing enhanced Epic functionality to further enhance the patient experience and improve efficiency for Patient Access staff. Expand access to self-schedule appointments, request and complete financial assistance applications, chat with Patient Access staff at any point in the patient's care, etc.

### Improve Efficiency, Accountability and Sustainability

- Improve patient safety and patient experience scores.
- Expand the capacity in the Connect Care Clinic by adding more day-time providers and extending the clinic time to include evening and night-time for walk-in patients.
- Extend the POCUS technology and Procedure Teams to the Community Campus and expanding the training center to become a national training center.
- Providing 24-hour code & trauma response by ACLS-trained Pharmacists at Community Campus
- Improve timely discharges.
- Optimize Command Center
- OR efficiency initiatives
- Increase use of renewable energy
- Expand composting & recycling across Upstate.
- Revenue Cycle
  - File for conversion to Rural Hospital status to garner 30% increase in resident cap which will ultimately yield over **\$8 million** in annual GME payments.
  - Development and implementation of a Presumptive Financial Assistance Eligibility process which will greatly reduce the number of accounts being referred to the NYS Attorney General's office and other collection agencies.
  - Continued improvement **(5%) on our overall CMI.**
- Retail & Contract Pharmacy
  - Increase our medication financial assistance programs by 30% which will improve our under insured patients access to medications.
- Retail Pharmacy
  - Expansion of our retail medication authorization program to clinic-based infusions to decrease provider/staff nursing burden while improving patient access and losses related to incorrect authorizations.
  - Expansion of our clinic-based oncology pharmacist teaching to the new Verona Cancer Center
- CDI - Query Process: Expect to increase review rate from 36% to 100% for hospital inpatients once the department is fully staffed.
- Utilization Management

- **Internal Second Level Review** - Expand medical provider coverage for level of care recommendations by utilizing advanced practice practitioners.
- **CPT-based approach to surgical scheduling:** Development of an approach that will allow for more accurate insurance authorizations prospectively. Additionally, it will enhance the hospital's ability to capture inpatient cases more readily leading to increased revenue.
- General Financial Services
  - Beat planned accrual loss plan (\$58.4M) and year end cash plan (\$218M).
  - Meet or beat planned clinical growth plans as follows:
    - Admissions: 32,543
    - Acute Inpatient Length of Stay (LOS): 6.0
    - OR Cases: 20,270
    - ER visits: 95,908
    - Clinic Visits: 517,715
  - Participate on **funds flow redesign** team to improve processes for valuing and flowing funds for services throughout the organization.
  - Successfully complete FEMA Application to secure appropriate reimbursement for COVID-related costs / disbursements.
- Managed Care Contracting
  - Rate increase Objectives:
    - Excellus: 10% increase for year 1 and 8% year 2 and 3
    - 10% increase for:
      - Aetna (including Medicare)
      - CDPHP (including Medicare)
      - Emblem/GHI
      - MVP (including Medicare)
      - UMR
  - Language improvements:
    - Full and Fair Reviews
    - External Review and ALJ as part of Dispute Resolution
    - Medicare Regulation Adherence

#### **Grow Programs & Community Partnerships**

- Nurse Pipeline tuition support program Spring 2024
- Continued staff growth and opening of beds above FY 24 budget targets
- Focus on growth for Clinical priority programs:
  - Nappi
  - Hutchings
  - Four Pillars: Cancer Center, Primary Care, Neurosciences, Cardiovascular

#### **Optimize Technology, Facilities & Support Services**

- EPIC Rover rollout Fall 2023
- Pharmacy led medication history to 75% of all admissions.
- Optimize access to telemedicine.
- Revenue Cycle
  - Implementation of a workflow technology tool which will improve the overall revenue cycle and greatly reduce write-offs.
- Implement Epic's commercial lab system, Beaker, to better position the lab for significant additional growth both as a commercial and reference lab



## FACULTY PRACTICE PLAN (UUMAS)

**Luis Mejico, MD** – Chair, UUMAS

Upstate University Medical Associates at Syracuse, Inc. (UUMAS) is a 501(c)3 university faculty practice corporation, which serves as the umbrella organization of the 19 clinical departmental practices – Medical Service Groups (MSGs) – within the Norton College of Medicine (COM). All together the Faculty Practice Plan's (FPP) total revenue was \$468.8 million. The mission of the UUMAS and the MSGs is to sustain and grow the clinical and academic enterprise by maximizing clinical revenue to support faculty salaries, practice expenses and educational and research costs assumed by the clinical departments. Focus on efficient clinical operations for those practices run by the MSG or UUMAS and providing patient access are key objectives as well.

Each MSG practice includes providers of the clinical specialty and sub-specialties of the respective COM department. UUMAS includes physicians and advanced practitioners who provide patient care in coordination with academic and research responsibilities.

UUMAS leadership, supported by a central office, works closely with MSG chairs and medical directors, as well as business, practice and billing managers to provide centralized services and coordination of distributed responsibilities.

**Overall Statistics:** 7/01/22 - 6/30/23:

**Clinical receipts: \$354.6M;** FY 21/22: \$341.4M; **Increase: 3.8%;** FY 20/21: \$332.7M

**Total revenue: \$468.8M;** FY 21/22: \$465.9M; **Increase: 0.6%;** FY 20/21: \$438.6M

**Total Providers: 1060 of which 258 are Advanced Practice Practitioners;** (last year = 999; 234)

**572 clinical faculty** participate in the annual fall (2023) Governing Board representative elections and are included in the total provider count.

**Total O/P Visits: 1,194,871;** FY 21/22: 1,129,278; **Increase: 5.8%;** FY 20/21: 1,110,648

**Telemed: 92,590;** FY 21/22: 112,083; **Decrease: (-17.1%);** FY 20/21: 200,127

**In Person: 1,102,381;** FY 21/22: 1,017,195; **Increase 8.4%;** FY 20/21: 910,521

### Key Points and Accomplishments:

- **Funds Flow:** UUMAS and the Dean's Office continue to lead the effort toward modeling a Funds Flow approach that would provide appropriate financial support of the faculty and clinical departments/MSGs as well as assure accountability based on benchmarking. Two principle intended outcomes are to better quantify the needed hospital support for the faculty physicians to provide necessary clinical services to the UMU Health Care System, and with University Legal, develop a mechanism to more efficiently transfer funds from the hospital to the MSGs and the COM. We are currently (fall 2023) working on beginning Stage 3. We began detailed analysis of all funding and sources for the clinical departments/MSGs for the calendar year 2022 as the base for future Funds Flow models. This approach includes development of data systems that will enable annual reporting. Stage 3 includes working with consultants but heavily relies on internal resources (Dean's Office, Campus Finance and UUMAS Central Office) to provide accurate, meaningful, and replicable data.
- **Institutional contracting and payment processes and structures to facilitate funding across entities:** UUMAS Principal Financial Officer led the effort, working with Campus Contracts and A/P key personnel to convert from paper to e-invoicing for MSG/UH contract payments. Significant efficiency and more timely payments were realized. University Legal, UUMAS, UH and MSGs have executed alternative agreements enabling a comprehensive Heart Institute Block grant to transfer promised funds to Surgery and Medicine covering 2022 for the amounts of \$898K for Surgery and \$11.2M for Medicine.

- **Expansion of primary care services:** Family Medicine at Township-5: The practice is very active and well received by the community, however physician recruitment continues to be challenging. There are two vacant positions for which active recruitment is underway and a recruitment firm has been engaged. The two nurse practitioners have full practices so that the practice has been able to grow slowly. Staff salary reviews and increases have ensured a reasonably stable work force.
- **NYS Health Care Workers' Bonus program:** UUMAS' Principal Financial Officer coordinated with RF and MedBest HR, UH administration and MSG business managers to execute the HCWB program. All eligible staff received bonuses for the first two quarters of the program. This was a monumental job since clarification, operation, and communication of the program was slow in developing from NYS.
- **The Cancer Center at Verona opened in fall 2023.** UUMAS, involved MSGs and UH have continued to work out appropriate financial arrangements to enable physicians to practice at the new Center.
- **Clinical patient revenue increased almost 4% due to increased clinical activity.** However, limitations within the Hospital in OR time and bed availability due to staff shortages limit provider productivity and income. Telehealth continues to work well and provides greater access to patients. UUMAS administrators and providers participated in the effort to select a telehealth platform that integrates with our Epic EHR system that will be activated by fall 2023.
- **The annual UH budget process for MSG was suspended for the 2<sup>nd</sup> consecutive year by the CFO due to the hospital revenue reductions.** A 2023 Emergency Funding Agreement between UUMAS and UH covered three MSGs which suffered significant losses in 2022 due to COVID and UH staffing issues, etc. On-going requests to the hospital to pay for clinical services and provide physician salary support to recruit and retain physicians, are considered at the hospital's Position Control Committee after review by the Dean's Office.
- **The review of Radiology** with assistance of consultants directed by the Dean's Office continued and recommendations should be complete by the end of 2023.
- **Quality Program Development:** UUMAS under the leadership of our Director of Quality and Practice Operations (Laura Cuff) and UUMAS Quality Officer (Scott Schurman, MD) worked with UH leadership to create the Ambulatory Quality Governance Committee, a collaborative committee of UUMAS and UH created to promote and improve AQA Vizient Scores and identify and accomplish other quality initiatives. Accomplishments include establishing two Ambulatory Quality Coordinator positions to focus on payor quality programs and AQA Vizient Metrics in the Primary Care Setting, and the development of a 30-day provider appointment cancellation policy and metric plan which will serve to assist in the improvement of the AQA Vizient Scores. The UUMAS Director of Quality trains and supervises these positions working closely with hospital administrators, clinic staff and providers.
- **Risk Management and Medical Malpractice:** Periodic reviews of new claims and cases are thoroughly discussed between the UUMAS Quality Officer, Nurse Risk Manager, Administrative Director, and Director of Quality Programs with the lead attorneys from Coverys, our medical malpractice carrier. Timely communication of current claims and incidents is sent to each Chair, and when appropriate, analysis is requested.
- **Third Party Payer Health Insurance:** After achieving NCQA accreditation through partnership with UH Medical Staff Office, full delegated credentialing was completed by adding 2 major insurance carriers, Excellus BC/BS and MVP. We are now able to enroll our providers as soon as they are UH privilege credentialed by submitting an updated spreadsheet to all non-governmental carriers. This enables new providers to see patients and receive payments as soon as they start at Upstate.
- **Faculty Practice Plan Compliance:** Continued guidance was provided on changes to CPT evaluation and management (E&M) documentation guidelines to MSG providers and staff. Providers have been encouraged to evaluate use of documentation templates that may lead to excessive documentation. CMS annual fee schedule changes and annual coding updates are communicated to providers and MSG staff with guidance on implementation of changes. Faculty Practice Plan audits were

completed for the coding and billing of conscious sedation and trigger point injections and audits are underway for coding and billing of psychotherapy services and critical care services along with departmental audits for E&M services. These services have been identified by enforcement agencies as potentially problematic and were reviewed to mitigate our risk of erroneous billing. The compliance officer and MSG practice management follow up on: providers with poor departmental professional billing audit results; professional billing audit planning and completion; and fulfillment of other compliance plan requirements.

#### UUMAS: Plans for 2023-2024 Academic Year / FY 2024

- **Funds Flow:** Working collaboratively with the COM Dean's Office, Campus and University Hospital, Stage 3 of development and modeling implementation of funds flow will begin in the fall and completion of this Stage is expected. Current State funding of clinical departments/MSGs will be completed by mid-fall.
- **Ambulatory Quality and Risk Management Programs:** The collaborative Ambulatory Quality Governance Committee will implement its plan to improve the 30-day provider appointment cancellation AQA Vizient metric through the introduction of the policy to faculty, development and sharing of reports to Medical Directors, UUMAS leadership and UH leadership, as well as identification of workflows causing barriers to metric success. The Nurse Risk Manager will be focusing on the development of a process for tracking and trending incidents, updating policies to align with best practices, and providing education and training to faculty to promote a culture of safety and risk awareness.
- **UUMAS Risk Management and Medical Malpractice:** UUMAS Quality Officer Dr. Scott Schurman and Nurse Risk Manager Lacie Eldred will implement the systematic approach they developed for reviewing medical malpractice claims and providing risk mitigation recommendations to appropriate leadership. A proactive risk management program that involves education of MSG faculty providers on: patient safety and risk management best practices, policies and administrative procedures management, and establishment of quality improvement initiatives, will be fully implemented.
- **Medical Malpractice Coverage:** UUMAS, under the leadership of our Quality Officer and Administrative Director, will renegotiate coverage for the 14 groups currently covered under Coverys. Alternative models of assuming risk will be developed with our broker and presented to the UUMAS Board for consideration. The goal is to stabilize premiums.
- **Compliance:** Efforts in 2023 will include continued education on documentation improvement given CPT E&M documentation guideline changes and split shared services, issuance of corrective action plans in response to identified issues and improvements to our FPP compliance program in response to new compliance program guidelines implemented by the Office of Medicaid Inspector General (OMIG).
- **Clinical growth and new programs:** Work will continue in collaboration with UH to support the Upstate Cancer Center at Verona and to recruit more providers for our Family Medicine practice at Township 5. Recruitment and retention of all staff continues to be a priority requiring frequent market salary reviews and improved collaboration between MedBest HR and Upstate HR.
- **Revenue and funding:** Efforts continue as the practice plan works closely with UH, Legal and COM to further refine the contracting and A/P processes.

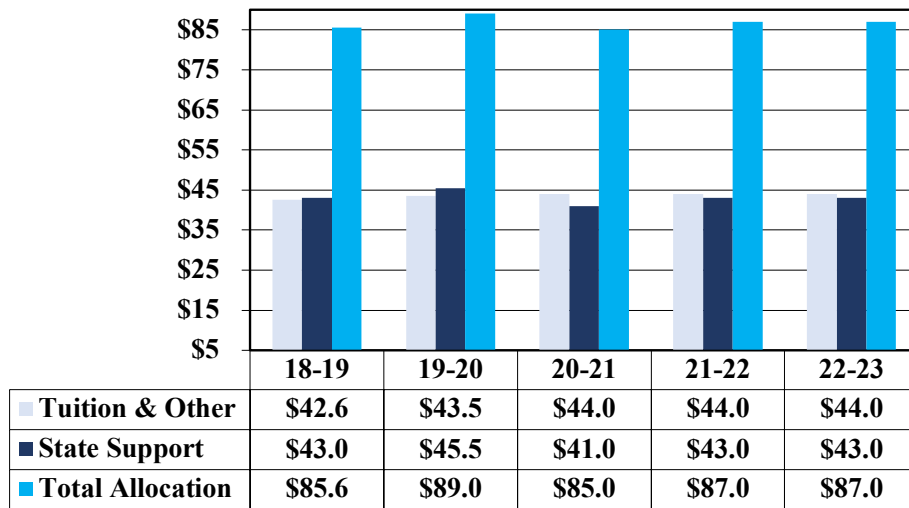
## CAMPUS FINANCES

Eric Smith, CPA, MBA – Senior VP for Finance and Administration

**Campus Budget:** The revenues generated in support of Campus operations in 22-23 was comprised of state tuition and interest revenues generated by its four colleges (\$44M), State support (\$43M), the Research Foundation (\$45M), and the CAO Fund (Dean’s tax from the Clinical Practice Plan) (\$14M). In comparison with the prior year, tuition revenue, state support, royalty revenues, and CAO revenues remained flat, while sponsored research revenues increased.

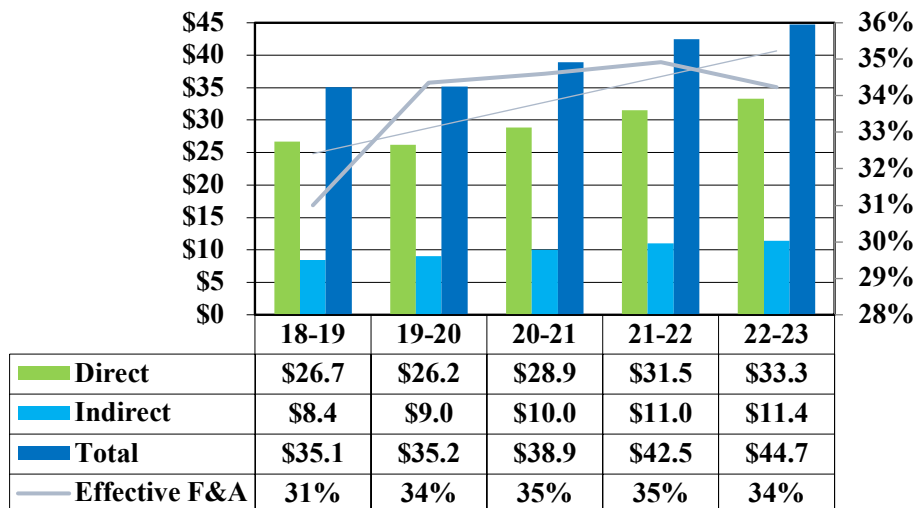
A summary of tuition revenue and state support trends in Chart 1 shows an increase of only 3% over the last 5 years as a result of flat tuition rates for most years while state support remained the same as that received five years prior:

**Chart 1 – Tuition Revenue and State Support, 2019-2023 (in millions \$)**



A summary of sponsored research activities in Chart 2 shows an increase of \$10M (27%) over the last 5 years, \$3M of which was an increase in the recovery of indirect expenditure reimbursement (F&A) (a 36% increase over the last 5 years). In addition, the effective F&A rate during this time increased from 31% to 34%, which is the highest effective rate of all SUNY campuses with total expenditures of at least \$40M:

**Chart 2 – Sponsored Research Revenue, 2019-2023, (in millions \$)**



The revenue growth, combined with expense management strategies, was sufficient to fund operating cost needs while also allocating funding for strategic initiatives, including key academic/research specific recruitment needs, investments in facilities and equipment, and funding for mandatory cost increases, including state negotiated and Research Foundation salary increases.



In addition, one-time funds have been generated annually from a combination of attrition and disciplined budget processes which have been used to establish cash reserves for operations and to support future faculty and chair recruitment needs in a variety of areas. Furthermore, multi-year budget discipline has also resulted in increases in cash balances held in State and non-state funds producing sufficient reserves for Campus operating purposes and financial uncertainties that may occur in the future. State cash balances were at or above the 25% of operating expense targets set by SUNY throughout FYE 22-23 demonstrating a healthy financial position for Upstate.




Lastly, based on recent financial metrics provided by SUNY as of FY22 (Figure 1), the most recent information available from System, Upstate is “Financially Responsible” for the third consecutive year as a result of multi-year financial improvements in financial position noted above.

**Figure 1 – Financial Risk Accountability Ratings, 2022**

*Upstate  
Key Financial Ratios and Indicators  
For the Years Ended June 30, 2022, 2021 and 2020  
(\$ amounts in thousands)*

The following five ratios and related benchmarks are commonly used in the higher education industry.

	<u>2022</u>	<u>2021</u>
<b>Composite Score</b>	2.6	2.2
<i>One of the many standards, which the Department of Education (USDE) utilizes to gauge the financial strength of an institution, is a composite of three ratios derived from an institution's audited financial statements. To develop the Composite Score rating we applied the same weighting percentages as the USDE for Private Not-for-Profit Institutions. The three ratios and weightings are a primary reserve ratio (40%), equity ratio (40%), and net income ratio (20%).</i>		

Green		1.5 to 3.0	Financially Responsible
Yellow		1.0 to 1.4	Financially Responsible, but additional oversight is required
Red		-1 to 0.9	Not Financially Responsible

Also, based on similar institutional monitoring reports provided by the Research Foundation for SUNY (Financial Risk Accountability Ratings Report) during FYE 23, Upstate was noted as being stable/strong financially by scoring 2.6 out of a possible 3.0, ranking 7<sup>th</sup> among all SUNY campuses. The ranking would have been in the top 2, however pending State contracts due to certain MSG’s from University Hospital caused delays in funding agency accounts and resulting in large temporary deficit balances and a lower scoring as a result.

**Other Finance Specific Accomplishments in FY23 (State, RF and Related Entities):**

- Initiated university-wide facility master plan project, in partnership with SUCF, expected to be completed in 2023.
- Settled long-standing property litigation resulting in the control of 8-acres of land for future development and initiated acquisition of adjacent property.

- Acquisition of strategic property adjacent to the CNYBAC
- Initiated funds flow redesign efforts with UH and UUMAS leadership.
- Positive financial statement audit results for UMU and its related entities – UPD, FSA, Upstate Foundation, FSA, CAO Fund, Clinical Practice Plan, etc.
- Continued coordinated budget and planning efforts between UH, Campus, and UUMAS (and SUNY) in proposing and implementing a number of funds flow initiatives to settle pending clinical obligations, including funds flow redesign efforts.
- Improvement in Geneva Tower finances as a result of debt refinancing, investment in the infrastructure, and improved occupancy and retention.
- Other Finance and Administration Accomplishments:
  - Human Resources and Payroll Services
    - Transition of new VP for HR and CHRO, including the roll out of a new HR plan to “re-imagine” delivery of HR services, including new positions, systems, and reorganization of functions.
    - Ongoing transition from the loss of 12 positions (22%) in HR and 5 positions (30%) in Payroll due to mandate and retirements
    - Leading efforts to relocate administrative support services to off-campus sites, freeing up on-campus space for clinical needs.
  - Accounts Payable, Contracts and Purchasing
    - Recruitment and transition of new Director for Accounts Payable, filling of open positions (previously down 5 positions and over 25% of total staffing as a result of mandates and retirements) and restructuring of staffing to restore necessary resources.
    - Support of significant increase in hospital staffing and traveler contracts and monthly payment requirements (over 600 invoices weekly)
    - E-invoicing process development within AP for tracking payment for MSG invoices in partnership w/ UUMAS.
  - University Police
    - Transition of established leadership in the department, appointment of interim Chief of Police.
    - Implementation of weapon detection systems at main entry points
  - Physical Plant / Environmental Services / Parking
    - Successful management of physical environment of Hospital and Campus space to ensure the safety of patients, staff, students and visitors despite staffing shortages and operational challenges.
  - Planning, Design and Construction
    - Completion of Nappi Wellness Institute, start of renovation of Silverman Hall, and major infrastructure projects at Weiskotten Hall.
    - Conception design and planning efforts for various initiatives, including CNYBAC expansion, Parking, and West campus.

## OFFICE OF DIVERSITY, EQUITY, AND INCLUSION

**Sipho Mbuqe, PhD** – *interim Chief Diversity Officer*

ODEI is directed by Sipho Mbuqe, PhD, who reports directly to the office of the President and works with the SUNY Office of Diversity, Equity, and Inclusion in Albany. The functions of ODEI include administration of the Minority and Women Business Enterprise (MWBE) program, recruitment and retention, affirmative action activities, and ongoing assessment of the campus diversity climate review, diversity programs, and community-based diversity initiatives.

### **Reorganization of the Office of Diversity, Equity and Inclusion (ODI)**

ODEI continues to learn and build on the work of a 2020 diversity task force and 2021 diversity, equity, and inclusion “Implementation and Oversight Tiger Teams” (IOTTs). ODEI made progress toward goals to close racial equity gaps and eliminate cultural and institutional racial discrimination at Upstate. However, after reevaluation, additional realignment was conducted. The realignment was instituted to improve efficiency, effectiveness, and accountability. Furthermore, Upstate Medical University President Dr. Mantosh Dewan unveiled a new strategic plan, which focused mainly on two themes of excellence and access, which are broken down into six priorities. Effective April 1, 2023, ODEI was reorganized. Instead of having all key personnel working on DEI issues centralized in ODEI, they were redeployed to individual departments within the University. This decision was made for the following reasons:

- To ensure DEI efforts are integrated in the daily functions and operations.
- To eliminate dual reporting structures, which lead to challenges in holding departments and people accountable.
- Eradicate the culture and practices that view DEI matters as separate from the core issues of each department.
- To eliminate redundancy and duplication of same or related DEI programs.
- To create coherent and consistent programming and messaging.

ODEI will focus on:

- Assisting in recruiting underrepresented minorities into all educational programs with an interest in recruiting students from the local city school district to enter any Upstate programs each year with an intentional focus on near-term and high-yield pathways.
- Assisting in Native American efforts for both employment and recruitment of indigenous faculty, staff, and students

An Ambassador and Assistant Ambassador of Indigenous Affairs have been hired, reporting to the President’s Office with the goals to:

- 1) Increasing Native American student enrollment in any of our educational programs each year.
- 2) Obtaining one federal grant per year for any Native American efforts including health programming and not necessarily student focused. This will require collaboration with other Upstate and external stakeholders to carry out the intentions of the grant.
- 3) Strengthening Native American relations with Upstate.
- 4) Special projects as assigned to increase Native American recruitment and retention.

### Office of Diversity and Inclusion: Plans for the 2023-2024 Academic Year

The ODEI goals for the 2023-2024 are a direct implementation of the university strategic plan's two themes excellence and access and implementing SUNY system priorities.

- Improving access for underrepresented minorities into all to Upstate's educational programs.
- Improve access and pathways for Syracuse City School District students into all Upstate educational programs; and dedicating all efforts into programs that focus on near-term and high yield pathways.
- Build a diversity and inclusion training program for the entire university starting with unconscious bias and microaggressions.
- Increase the recruitment of local diverse workforce by improving access for Syracuse residents to get jobs at Upstate at all employment levels. There will be a specific HR recruiter to assist.
- Increase the number of local MWBE contract opportunities at Upstate.
- Establishing new relationships with local MWBE contractors and developing a database of local MWBE.
- Building the departmental DEI advocates model across all for colleges.
- Build programs that improves and foster a sense of belonging at Upstate for everyone regardless of their racial, cultural, ethnic, religious, gender, and nationality background.



## OFFICE OF INSTITUTIONAL EQUITY

**Katie King, MAT, JD** – *Institutional Equity Officer and Title IX Coordinator*

SUNY Upstate’s Office of Institutional Equity (OIE) is tasked with administering the University’s policies pertaining to non-discrimination and harassment prevention. Taken together, these policies prohibit all forms of discrimination and harassment based on race, color, national origin, religion, age, disability, sex, gender, pregnancy, gender identity, gender expression, sexual orientation, transgender status, predisposing genetic characteristics, citizenship or immigration status, marital status, familial status, veteran status, military status, domestic violence victim status, criminal conviction record, or any other category protected under state, federal, or local law (“protected class”).

OIE is available as a resource for all members of the Upstate Community, including but not limited to faculty, medical providers, supervisors, managers, staff, students, trainees, applicants for employment or for admission to an academic program, volunteers, vendors, patients, visitors, guests, and all other individuals present on Upstate’s campus or participating in Upstate’s programs or activities.

### **Policy Updates**

During the 2022-2023 academic year, OIE revised the following policies and procedures relating to protected class discrimination and harassment:

- Equal Opportunity and Non-Discrimination Policy, UW E-01
- Harassment Prevention Policy, UW H-01

### **Training**

OIE provides training for members of the Upstate Community in the areas of sexual and gender-based harassment and violence prevention, bystander intervention, and the prevention of protected class discrimination and harassment. OIE offers training in multiple formats, to include annual training via BlackBoard, live Zoom trainings, as well as in-person training.

OIE provides mandatory sexual harassment prevention training to all employees on an annual (calendar year) basis. In 2022, over 8,900 employees completed this mandatory training. OIE also provides sexual harassment prevention training to students as required by New York State’s Enough is Enough law, through SUNY SPARC (Sexual and interpersonal violence Prevention and Response Course) training.

In 2021 OIE, in conjunction with the Office of General Counsel (OGC), and with the support of the Office of the President, implemented live training directed at supervisors and managers. This training aims to ensure that supervisors/managers know how to recognize and handle claims of discrimination and harassment in the workplace. During the 2022-2023 academic year, OIE and OGC trained over 550 supervisors and managers.

OIE also offers individualized training to departments upon request and trained multiple departments during the 2022-2023 academic year.

### **Inquiries and Investigations**

OIE supports the Upstate Community through consultation on issues related to protected class discrimination and harassment, as well as through conducting formal investigations into such activity when requested or required. An inquiry is made when OIE is approached with questions, requests for information or supportive measures, requests for training, or reports of alleged policy violations. A formal investigation occurs when a Complainant makes a formal verbal or written request that OIE investigate alleged violations of Upstate policies.

During the 2022-2023 academic year, OIE received 157 inquiries. These inquiries originated from self-reports, third party reports, and referrals from other departments within Upstate, and involved requests for training, information requests, and referrals regarding policy violations.

In addition to the inquires, OIE received 40 requests for formal investigation in the 2022-2023 academic year. It is important to note that while the complaints were made in the 22-23 academic year, they may have related to conduct occurring prior to this time frame. There is no time limit on raising a complaint to OIE.

Those filing complaints with OIE may self-categorize the nature of the reported behavior and may also report multiple types of prohibited conduct. It is ultimately the role of OIE to review complaints and identify the alleged prohibited conduct. There may be times when OIE identifies additional and/or different prohibited conduct than originally raised by the complainant.

The below table displays the prohibited conduct that was formally investigated by OIE in the 2022-2023 academic year.

Prohibited Conduct Reported 2022-2023	Allegations
Race/Color	11
National Origin	1
Religion	1
Age	2
Disability	6
Sex/Gender/Pregnancy	11
Sexual Orientation	6
Gender Identity/Gender Expression	0
Title IX Sexual Harassment <sup>1</sup>	0
Non-Title IX Sexual Harassment	13
Marital Status/Familial Status	0
Veteran Status/Military Status	0
Domestic Violence Victim Status	0
Retaliation	4
Total <sup>2</sup>	55

**Office of Institutional Equity: Plans for the 2023-2024 Academic Year**

- In the coming year, OIE will continue to engage in University-Wide training opportunities, with a goal to expanding the training opportunities offered. OIE plans to include faculty in its training for supervisors/managers.
- OIE will also continue to engage with student populations to increase awareness.
- OIE will continue to foster a sense of belonging through prompt and impartial response to inquiries and requests for investigation.

<sup>1</sup> Title IX contains a definition of sexual harassment that is not as broad as the conduct prohibited under Upstate’s Harassment Prevention Policy.

<sup>2</sup> This number does not match the number of total investigations (40) because complaints may allege more than one type of prohibited conduct.

## OFFICE OF EXTERNAL RELATIONS

**Linda Veit, MPH** – *Assistant VP of Community Relations*

External Relations continues to be led by Linda Veit and encompasses Community Relations (Linda Veit), Government Relations (Jonathan Archey), and Public and Media Relations (Darryl Geddes), and Marketing and University Communications (Leah Caldwell).

External Relations, under the President's Office aligns Upstate's mission with the larger outside community, engaging the public in health programming, health education, and general awareness of Upstate resources to the community; overseeing strategic communication and marketing; strengthening state and federal government relations for the University system.

### COMMUNITY RELATIONS

**Linda Veit, MPH** – *Assistant Vice President of Community Relations*

The Office of Community Relations continues to engage our external community in education, events, and awareness regarding Upstate Medical University. Reporting to the University President, the Community Relations team functions to enhance Upstate's reputation, attract new talent, both employees and students, and create new and lasting relationships with community leaders and officials all with the goals to establish mutually beneficial community partnerships. By developing and nurturing the strong partnerships with community organizations and key stakeholders, they can help to champion and support the mission of Upstate. As a trusted partner, Upstate has a responsibility to improve the health of all we serve in the 21-county area and beyond.

#### **Achievements in the last year include:**

The outreach section of Community Relations secured numerous community grants, over \$160,000 for health programming just in the last year for breast and colon cancer screenings (She and We Matter program), chronic disease prevention, and mental health efforts specifically focusing on the underserved populations in and around Syracuse; both urban and rural to address the many health disparities that exist.

The U Matter program at Upstate, which is a grassroots program to help guide and mentor under-represented youth from our community to attend one of Upstate's four Colleges for healthcare education degrees leading to rewarding careers in health, has also received financial grant support. U Matter has developed a good collaborative relationship with student admissions and volunteer services to offer many opportunities and pathways to youth interested in health careers.

Project ECHO (Extension for Community Healthcare Outcomes) was part of Upstate External Relations division under Community Relations in this academic year. Project ECHO is a teleconferencing, case-based platform for primary care providers to increase knowledge and expand treatment and management skill to allow patients to be treated in their areas by their own providers. Reaching into 30 counties and 40 zip codes across New York State, health care providers learned and asked questions on topics that included toxicology, cancer survivorship, mental health, pediatrics, burns, and emergency medicine.

Team Upstate is our institutional volunteerism effort where our employees and students give their time and talents to support causes to promote quality of life and maintain Upstate Medical University's mission, vision, and values among our community. Team Upstate participated in 15 volunteer opportunities & events with over 800 participants. Group activities under Team Upstate included partnering with community

organizations to prepare and serve meals to shelters, guest houses and extended stay locations, participate in city clean-up days, as well as painting, gardening projects for community agencies.

The United Way Community Giving Campaign continues to be the major fundraising campaign for the community. Upstate Medical University employees and retirees raised \$572,853 for the Community Giving Campaign. We were able to provide support for hundreds of local non-profits in our local community as well as over \$200,000 that went back to our own Upstate Foundation to support Upstate programs.

The many community awards that Upstate received are listed in the [Appendix A](#).

#### **Community Relations: Plans for the 2023-2024 Academic Year**

- Maintain and grow existing relationships to connect Upstate to our external community.
- Partner with more community groups to encourage healthcare education and expanded health programming to serve more individuals and create more pathways for education and employment.
- Obtain additional community grants to expand programming to wider populations in and around Central New York

## **GOVERNMENT RELATIONS**

**Jonathan Archey, MA** – *Assistant Vice President of Government Relations*

### **NY State**

In concert with SUNY Administration, the Healthcare Association of New York State (HANYS), Downstate, Stony Brook and other partners, we:

- Obtained, for the three SUNY Academic Medical Centers and for the second year in a row, a 1-year reprieve from having to shoulder the costs of capital debt service on behalf of New York State.
- Secured enactment of increases in base Medicaid reimbursement rates for hospital services (7.5% for inpatient and 6.5% for outpatient).
- Secured in the state budget the full state match funding for offsetting SUNY hospitals' costs of providing care to the indigent and uninsured (DSH program). Impact: About \$200M to reimburse such care provided at Upstate.
- Secured capital spending authority. Impact: \$50M in spending authority.
- Secured critical maintenance of Upstate facilities. Impact: About \$4M for Upstate.
- Delayed the implementation of a provision enacted in the 2020 NYS Budget which would drastically reduce cost savings Upstate and other hospitals realize from the federal 340B Drug Rebate Program.
- Successfully lobbied the state to authorize \$990M in funding for a Round V of the Statewide Health Care Facility Transformation Program, which Upstate will pursue as RFPs are released.

### **US Federal**

In concert with hospital, research and higher education advocates nationwide, we:

- Successfully lobbied Congress to extend the Medicaid Children's Health Insurance Program for an additional two years, through 2028.
- Delayed scheduled cuts to the Medicaid Disproportionate Share Hospital (DSH) program scheduled to take effect in FFY2021, preserving \$56M in DSH reimbursement for Upstate until at least FFY2024.
- Successfully lobbied Congress and the Administration to:
  - Prevent the scheduled Pay-As-You-Go (PAYGO) Medicare 4% sequester for two years.
  - Extend for two years critical Medicare telehealth flexibilities and the Acute Hospital Care at Home program.
  - Require state Medicaid programs to provide 12 months of continuous coverage for children and permanently allow states to offer 12 months of coverage for postpartum women.
  - Reduced the physician fee schedule cut from 4.5% to 2% for 2023 and roughly 3% for 2024.
  - Provide 200 additional Graduate Medical Education (GME) slots, at least half of which will be dedicated to psychiatry and psychiatry subspecialty residencies, among other workforce provisions.
  - Take several steps to improve access to behavioral health services.
  - Make improvements to the government's ability to prepare for future emergencies; and
  - Delay by one year reductions in payment for clinical laboratory tests and data reporting requirements under the Clinical Laboratory Fee Schedule.

### **Central New York**

In concert with business, community, local government, and other advocates in the region, we:

- Secured nearly \$1M in Congressionally-directed spending toward the creation of SUNY Upstate's Comprehensive Lyme and Tick-Borne Disease Treatment Center.
- Secured \$1.1M in Congressionally-directed spending toward the creation of SUNY Upstate's Suicide Prevention Center.

## Government Relations: Priorities for the 2023-2024 Academic Year

### NY State

In concert with SUNY Administration, the Healthcare Association of New York State (HANYS), and other partners:

- Secure necessary governmental approval and support to address Upstate's critical physical plant infrastructure, modernization, and patient care space needs.
- Secure state budget line-item and grant funding for Upstate's various strategic clinical, research, and academic priorities; and
- Defeat proposed policies that would catastrophically increase Upstate's costs, decrease its reimbursement, or otherwise disadvantage it relative to other institutions and entities. care services.

### US Federal

In concert with hospital, research, and higher education advocates nationwide:

- Protect/increase funding for training, reimbursement, opportunities, and support services for Upstate's personnel and students, including biomedical researchers, faculty, medical residents, nurses, physicians, and other health professionals; and
- Secure legislation to protect Upstate from scheduled catastrophic cuts to its Medicaid Disproportionate Share Hospital (DSH) funding.

### CNY Local/Regional

Support responsible renovation of the I-81 corridor in manners that preserve access to Upstate's educational, clinical and research.

### Perennial Priorities

- Continue building and maintaining strong, pro-active relationships with government officials and staff.
- Continue cultivating ongoing advocacy partnerships with our fellow SUNY entities, trade and professional societies, and coalitions.

## **PUBLIC AND MEDIA RELATIONS**

**Darryl Geddes** – *Assistant Vice President for Public and Media Relations*

Upstate Medical University continues to work with media, social media outlets and other communications methods to help tell its story to the wider community. The stories Upstate promoted in the past year, tell the story of an engaged institution on the forefront of research, teaching and patient care with prominent award-winning faculty and staff eager to share their expertise with the broader community.

Some of the stories that attracted media attention and helped build awareness and support for the university are:

- Three faculty visited Ukraine, bringing medical supplies and providing medical assistance to the war-torn country.
- Upstate became the first site to dose a patient in a national clinical trial of a regenerative human cell therapy for the treatment of epilepsy.
- Upstate received two federal grants to support a suicide prevention center and a Lyme and tick-borne disease treatment center.
- Upstate researcher Dr. Stephan Faraone, a SUNY Distinguished Professor, was ranked as the 80th “best scientist in the world,” and 57th best in the United States, according to Research.com
- Research by Dr. Jeffrey Bogart, published in the Journal of Clinical Oncology, is leading to changes in treatment options for small-cell lung cancer.

### **Upstate doses first patient in national clinical trial of regenerative human cell therapy for treatment of epilepsy**

<https://www.upstate.edu/news/articles/2022/2022-06-29-neurona1.php>

### **Upstate surgeon takes medical mission to help war victims in Ukraine**

Upstate head and neck surgeon Sherard ‘Scott’ Tatum, MD, traveled to Ukraine in September to perform facial surgeries on civilians and soldiers injured in the war with Russia.

<https://www.upstate.edu/news/articles/2022/2022-11-23-tatum1.php>

### **Upstate will launch a Multidisciplinary Lyme and Tick-Borne Disease Treatment Center**

Upstate Medical University will launch a Multidisciplinary Lyme and Tick-Borne Disease Treatment Center, thanks to a federal grant secured by Upstate’s federal delegation, U.S. Sens. Schumer, Gillibrand and Rep Katko.

<https://www.upstate.edu/news/articles/2023/2023-01-05-paoticktreat.php>

### **Upstate awarded \$1.1 million to establish a suicide prevention center**

Upstate Medical University will receive \$1.1 million in federal funds to establish a Suicide Prevention Center, an umbrella center under which its current programs and outreach can be coordinated and supported. The funding was secured by U.S. Sen. Majority Leader Charles Schumer, Sen. Kirsten Gillibrand and former Congressman John Katko.

<https://www.upstate.edu/news/articles/2023/2023-01-12-suicidecenter.php>

### **Third Upstate doctor travels to Ukraine to provide medical aid**

Upstate Radiology Professor David Lubin, MD, got a great deal on a portable sonogram machine on Black Friday. He loaded the machine, some trauma first aid supplies and warm clothing into the biggest rolling duffel bag he could get, took two flights, a bus and then a train to deliver it all safely to medics in Ukraine last month. By bringing the supplies to Lviv himself, he could not only guarantee their safe arrival, but could also train the volunteer medics on how to use the sonogram machine in a trauma setting.

<https://www.upstate.edu/news/articles/2023/2023-02-01-lubin.php>

### **Findings of major Upstate-led clinical trial provide patients with new treatment options**

A clinical trial led by Upstate Medical University radiation oncologist Dr. Jeffrey Bogart may have major implications for the treatment of small-cell lung cancer, The study, High-Dose Once-Daily Thoracic Radiotherapy in Limited-Stage Small-Cell Lung Cancer, was published Jan. 9 in the Journal of Clinical Oncology

<https://www.upstate.edu/news/articles/2023/2023-01-26-bogart.php>

### **Upstate, SUNY College of Optometry join forces to address eye care workforce needs and access in Upstate New York**

Upstate Medical University and the SUNY College of Optometry will join forces to improve access to health care through growing the number of eye doctors in Central and Western New York. The partnership between the two SUNY campuses leverages the strengths of both institutions through creating an Optometry campus extension program offering a doctorate of optometry degree, collaborative vision research, access to eye care, and economic opportunities in the region. This partnership addresses the critical need for more eye doctors in the region and provides a more affordable option for aspiring eye care professionals, especially those who live in New York State.

<https://www.upstate.edu/news/articles/2023/2023-02-21-optometry.php>

### **SUNY Upstate professor named 80th best scientist in the world**

Stephen V. Faraone, PhD, SUNY Distinguished Professor at Upstate Medical University, who is a foremost scholar on attention deficit hyperactivity disorder, has been ranked as the 80th “best scientist in the world,” and 57th best in the United States, according to Research.com.

<https://www.upstate.edu/news/articles/2023/2023-04-20-faraone.php>

### **Upstate’s Bratslavsky plays key role in Irpin, Ukraine, becoming Syracuse’s sister city**

Upstate Medical University officials were front center with Syracuse City officials last week, when Mayor Ben Walsh and Mayor Oleksandr Markushyn of Irpin, Ukraine, officially announce their union as Sister Cities. Irpin, located in the Kyiv Oblast, was one of the first Ukrainian cities to be destroyed and liberated.

<https://www.upstate.edu/news/articles/2023/2023-04-14-ukraine.php>

## **MARKETING AND UNIVERSITY COMMUNICATIONS**

### **Leah Caldwell – Assistant Vice President for Marketing and Communications**

In addition to its regular services as an in-house creative agency, Marketing & University Communications engages the community in consumer-oriented health information activities featuring Upstate experts—specifically aimed at being trusted advisor for a range of topics — as well as Oasis programming for adults age 50+ to support healthy aging.

From July 2022-June 2023, the department supplied the following programming:

- 384 Oasis classes, including 56 Vitality exercise classes, for more than 3,000 unique participants.
- 1,147 participants attended a Chronic Disease Self-Management class. This included programs for chronic pain, arthritis, diabetes.
- 27 different HealthLink wellness programs for 1,520 total registrants.
- 190 Upstate experts were interviewed for the Informed Patient radio show, airing on 14 NPR stations. In addition, the corresponding podcasts were viewed 11,737 times in six months.



## PHILANTHROPY

### THE UPSTATE FOUNDATION

#### **Eileen Pezzi, MPA – Vice President for Development**

Founded in 1976 as a 501(c)3 not-for-profit corporation, the Upstate Foundation is a public charity designed to receive and administer gifts and bequests exclusively for charitable purposes with a focus on (1) the provision of patient health care, (2) the education of health care providers, (3) scientific research, and (4) community health and well-being. The Upstate Foundation also is the primary vehicle for receiving and distributing philanthropic gifts for Upstate Medical University.

The Foundation has 26 full- and part-time staff members, who, with a 44-member board of directors, manage more than 1,100 funds; conduct multi-year, million-dollar endowment campaigns; capital campaigns; administer alumni associations for the Upstate Colleges of Nursing and Health Professions; implement named giving and planned giving programs; provide Donor Advised Funds, run annual campaigns for Upstate University Hospital, Upstate Golisano Children's Hospital and the Upstate Cancer Center; and sponsor several major fundraising events, and many third-party events annually. In addition, the Foundation is home to the local chapter of the Children's Miracle Network Hospitals. The Foundation is largely self-supporting.

#### **2022 Accomplishments**

- \$12,985,276 in contributions
- \$6,627,555 awards given out benefiting Upstate Medical University
- \$3.2M campaign started: child and adolescent mental health
- 5th in overall fundraising for SUNY foundations, continuing a long-standing pattern of being 4th, 5th or 6th every year, superseded only by Buffalo, Stony Brook and Cornell Statutory
- With President Dewan, secured a \$50M pledge to name the Upstate Cancer Center, the largest pledge in the history of Upstate.
- Opened 3 Donor Advised Funds; 22 DAFs have been opened to-date, \$11.2 million dollars received.
- Continue to be a Platinum rated charity on Guidestar

#### **Top 6 Goals / Focus Projects for 2023**

##### **Goal #1: \$8M contribution goal for 2023.**

Currently at \$7M, anticipate exceeding this goal. Goal is set by eliminating large, unanticipated one-time gifts (such as bequests) and projecting income from campaigns, events and regular donors.

##### **Goal #2: Succession Planning and Staff Retention**

The Foundation has lost a number of key staff members due to anticipated retirements. Local competition for experienced development officers has made hiring difficult, and some newer employees have been lured away by other nonprofits with large pay increases. Out of a total 34 available positions, we currently have 10 vacancies (30%) and 7 new staff (20%) with less than 2 years on the job. Senior staff are having to spend a large portion of their time working on recruiting staff and mentoring new staff members which greatly reduces the time available for fundraising and fund management. We also have additional senior staff who will be retiring soon so this personnel situation will not resolve itself in the next year.

### **Goal #3: Child and Adolescent Mental Health Campaign**

The mental health of our children and adolescents has become so concerning that the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association recently declared a national emergency. The US Surgeon General has called for growth of community-level mental health teams for children. Children and families are in crisis in our community, and mental health service providers simply cannot keep up with the need. The demand is simply too great. Upstate's services are struggling to meet local needs.

The Upstate Foundation, in conjunction with Upstate Medical University, Upstate Golisano Children's Hospital, Upstate Department of Psychiatry and Elmcrest Children's Center, is embarking on an important, collaborative response to this national and local emergency to increase clinical capacity and improve access to critical services. A \$3 million campaign is underway, and the response from the community has been positive. We anticipate increasing the campaign goal before the end of the year.

### **Goal #4: Securing a naming donor(s) for the Upstate Cancer Center**

President Dewan identified a need to find a major donor to name the Upstate Cancer Center and provide sufficient funding to support activities involving cancer related research, education, and clinical care. It is also the hope that this gift will assist in the Upstate Cancer Center acquiring NCI designation.

Working together with long time breast cancer research supporter, the Carol Baldwin Breast Cancer Research Fund of CNY, Inc., and the Carol Baldwin family, President Dewan and Eileen Pezzi worked through a long negotiation to secure a pledge of \$50M to name the Upstate Cancer Center. This is a milestone pledge for Upstate.

### **Goal #5: Brain Health Fundraising**

Local couple, Sam and Carol Nappi made a tangible commitment to this effort with their \$8 million gift toward a wellness institute to expand services related to "brain health" or neurosciences, including a focus on Alzheimer's disease.

Mr. Nappi, with the assistance of the Upstate Foundation, has further committed to raising an additional \$10 to \$25 million over five years for the Nappi Wellness Institute. The 2017 Upstate Gala and the Upstate Open started this effort by raising a half million dollars toward the project. The pandemic sidelined this fundraising effort. Now that the Nappi Wellness Institute building has been completed, the Foundation hopes to assist the Nappi's to make outreach fundraising efforts to benefit brain health.

### **Goal #6: Branding for the Upstate Foundation, ongoing**

The Upstate Foundation Board of Directors identified building brand awareness of the Upstate Foundation as a key strategic initiative in 2021. A board committee was formed and includes both internal and external marketing and communication professionals.

Examples of the importance of branding include Upstate faculty opening Donor Advised Funds with other local non-profits when they could receive the same benefits opening a DAF at the Upstate Foundation, and this would also better benefit Upstate in the long run.

Progress continues to be made on this important initiative, but there is still much to be done. When internal publications highlight the results of the Upstate Foundation receiving gifts that benefit Upstate's mission, it puts the Foundation in the forefront of giving options within the large Upstate employee population. Long term employees, particularly professionals such as faculty, are excellent prospects for donating to causes at Upstate that are dear to their heart, as current gifts or future legacy gifts. Branding initiatives play an integral part in this process.

## UPSTATE MEDICAL ALUMNI FOUNDATION

**Paul Norcross** - Executive Director Medical Alumni Foundation

The mission of the Upstate Medical Alumni Foundation (MAF) is to promote the interests and improve the effectiveness of the Norton College of Medicine at Upstate Medical University, to foster fellowship among our alumni, to assist in the recruitment of students, and to provide opportunities to network for both students and alumni.

What began as a “band of brothers” in the early 1950’s is now a professional 501(c) 3 organization that manages over 150 funds which primarily support educational programs for students in the Norton College of Medicine. The MAF provides medical students with over \$850,000 annually in scholarship aid and funds many other student-centered initiatives such as providing textbooks, white coats, reimbursement for educational travel expenses, career mentoring and other student priorities identified by the college. The MAF also serves the needs of our Alumni by holding Reunions, regional receptions and keeping them connected through publications such as the Alumni Journal and through the MAF’s on-line Alumni directory.

Today the Upstate Medical Alumni Foundation has an ongoing plan to engage its alumni in seeking their philanthropic support. The MAF consists of 4 full-time and 2 part-time staff members who along with a 37-member board of directors manage over \$33 million in assets, run annual and membership campaigns; oversee major gifts, named giving and planned giving program; and administer the student scholarships and awards program.

We remain committed to the success of our students and alumni/ae.

### Upstate Medical Alumni Foundation Fundraising Year 2023 at a Glance:

**October 1, 2022 through September 30, 2023**

#### Gifts and Pledges

- Total gifts and pledges = \$1,355,069
- Number of gifts = 2,149
- Number of donors = 1,733

#### Breakdown of Fundraising Initiatives

- Scholarship support = \$743,318
- Endowment (*excluding scholarships*) = \$69,969
- Operating funds (*Alumni Annual Fund, Parent Annual Fund and Membership Program*) = \$523,282
- Restricted giving = \$18,500

### Upstate Medical Alumni Foundation Programs 2023

#### Student Services and Programs

- **Scholarship Support:** In 2023 the Medical Alumni provided \$862,494 to 92 students.
- **Textbook/Reference Guides Program:**
  - *Netters Atlas of Human Anatomy* books given to all first-year students
  - *First Aid for the USMLE* books given to all second-year students
  - White Coat Clipboards given to all third-year students
- **White Coat Program:** The initial white coat is provided to all first year-students at the White Coat Ceremony and then a new white coat (with Norton College of Medicine and student’s name embroidered on coat) is provided to all third-year students to begin their medical rotations.

- **Student Reimbursement for Travel to Medical Conferences:** The MAF assists medical and MPH students with expenses incurred by attending or presenting at medical seminars, conferences, mission trips or other medical or academically related events. Each student is eligible for reimbursement up to \$300 per calendar year.
- **Career Advisory Event and Network:** In person in 2023, the Career Advisory brought together 161 students and mentors, giving students the opportunity to explore their interests in various specialties or residency programs and gather advice from those with first-hand experience in that field.
- **Fellowships:** The MAF supports the Susan and Gustave L. Davis, MD '63 Summer Fellowship for Pathology, the Ellen Cook Jacobsen, MD '50 Fellowship in Psychiatry, and the Pediatric Residents Endowment for International Studies. In 2023 the MAF had \$12,950 available in support for these fellowship programs.

#### **Alumni Services and Programs**

- **Alumni Events:** Due to COVID restrictions all Regional Alumni Receptions were cancelled. This year Reunion Weekend will be held October 13-14. As of 9/30/23 there are 220 RSVPs.
- **Alumni Journal:** The Alumni Journal showcasing alumni accomplishments and campus news is provided to all alumni, parents, students, and the campus community three time per year.

#### **Lectureships**

The MAF supports honorarium and expense related funds for the following lectures: The Lawrence Pickett, MD Endowed Lectureship in Pediatric Surgery, The Welton M. Gersony Pediatric Lectureship, Robert V.P. Hutter, MD '54 and Ruth L. Hutter Endowed Lectureship and The Donald and Mary Elizabeth King Endowed Lectureship. New in 2023 was the Betty and Jacob Reiss Endowed Lecture. In 2023 the MAF had \$14,400 available in support for these lectures.

#### **Chairs and Professorships**

The MAF supported the following Named Department Chairs and Professorships in 2023:

- \$57,050 to the Stanley A. August, MD Endowed Professorship in Pediatrics
- \$80,200 to Medical Alumni Endowed Professorship in Bioethics
- \$50,300 to Lloyd S. Rogers Endowed Professorship in Surgery
- \$52,650 to The Patricia J. Numann, MD '65, Chair of Surgery
- \$31,950 to the Leanne and Frank E. Young, MD '56 PhD Endowed Chair in Biomedical Science

#### **Generation to Generation: Excellence in Medicine Campaign**

Our \$15 million campaign for student scholarships is now in its third year. This campaign provides the opportunity for alumni to create a legacy at Upstate Norton College of Medicine while lessening student debt for future physicians.

According to the Association of American Medical Colleges, the average cost of a four-year medical education from a public institution now tops \$250,000. The result is an average debt burden of more than \$220,000 for today's Norton College of Medicine graduates.

At the same time, the United States is facing a growing shortage of primary care physicians. The shortages are particularly acute in rural areas. Upstate has a legacy of addressing this need through its Rural Medicine program but the reality of loan debt is an obstacle for many students. For today's graduates, pursuing higher-paying specialties may not be a choice of passion or prestige but one of necessity.

To help combat these issues, the Upstate Medical Alumni Foundation launched this campaign to help College of Medicine alumni support Norton College of Medicine students. Aiming to raise at least \$15 million for student scholarships by 2025, the goal is to reduce student debt and simultaneously address the primary care shortage by providing our graduates with the freedom to pursue the specialty of their choice.

Our Alumni's response to the campaign has been tremendous thus far, raising our totals from \$10.8 million a year ago to \$13.2 million as of September 30, 2023. With two years remaining in the Campaign, we are very hopeful our Alumni will continue their generous support helping us to surpass our goal of \$15 million.

**The College of Medicine Naming:** Without a doubt, the most significant news of the Generation to Generation Campaign is the naming of the College of Medicine. Alan, MD '66 and Marlene Norton chose to make a most impactful gift to the Upstate Medical Alumni Foundation. In recognition of this gift, the SUNY Board of Trustees and Upstate Medical University have chosen to pay tribute to the Nortons by naming the College of Medicine in their honor. For evermore the Upstate College of Medicine will be known as the **Alan and Marlene Norton College of Medicine**.

#### Upstate Medical Alumni Foundation: Plans for the 2023-2024 Academic Year

- Continue focus on Generation to Generation, Excellence in Medicine Campaign.
- Expand the bequest participation aspect to Campaign.
- Resume Alumni Events: Planning events in Boston, MA, W. Palm Beach, Naples, Sarasota, FL and NYC
- Increase attendance for the 49th Alumni Reunion.

# APPENDIX

## APPENDIX A: AWARDS, RECOGNITIONS, & ACHIEVEMENTS

### AWARDS, RECOGNITIONS, & ACCREDITATIONS

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#### UPSTATE MEDICAL UNIVERSITY

- **American Heart Association awards highlight outstanding care for stroke, heart failure and resuscitation**

Three awards highlighting outstanding care at Upstate University Hospital in the areas of stroke, heart failure and resuscitation have received high praise from the American Heart Association.

Upstate has received the:

- Get With the Guidelines®-Stroke Gold Plus Achievement Award with Target: Stroke Honor Roll Elite Plus and Target: Type 2 Diabetes Honor Roll;
- Get With the Guidelines®-Heart Failure Gold Plus Quality Achievement Award with Target Heart Failure Honor Roll and Target: Type 2 Diabetes Honor Roll;
- Get with the Get With The Guidelines® Resuscitation Gold Achievement Award.

For its stroke care, Upstate received the Get With the Guidelines®-Heart Failure Gold Plus Quality Achievement Award with Target Heart Failure Honor Roll and Target: Type 2 Diabetes Honor Roll. The award recognizes the hospital's commitment to providing the most appropriate stroke treatment according to nationally recognized, research-based guidelines based on the latest scientific evidence. Upstate earned the award by meeting specific quality achievement measures for the diagnosis and treatment of stroke patients at a set level for a designated period. These measures include evaluation of the proper use of medications and other stroke treatments aligned with the most up-to-date, evidence-based guidelines with the goal of speeding recovery and reducing death and disability for stroke patients. Before discharge, patients should also receive education on managing their health, get a follow-up visit scheduled, as well as other care transition interventions. Upstate's stroke care has been honored previously by the American Heart Association/American Stroke Association. Upstate is the region's first Comprehensive Stroke Center as designated by DNV Healthcare, a national hospital accrediting body.

For its Heart Failure Care, Upstate received the Get With the Guidelines®-Heart Failure Gold Plus Quality Achievement Award with Target Heart Failure Honor Roll and Target: Type 2 Diabetes Honor Roll. This Gold Plus honor recognizes our aggressive goal of treating patients to the key standards of the American Heart Association, especially the quality of care for our Heart Failure patients, including a quadruple medication therapy at discharge," said Connie Randolph, RN, MS, CNS, CCCC, coordinator of the heart failure program. "The tools and resources provided help us track and measure our success in meeting evidenced-based clinical guidelines developed to improve patient outcomes." This award recognizes Upstate Downtown and Community campuses commitment to ensuring that our heart failure patients receive evidence-based medications and interventions. The goal is to enhance the quality of life for our heart failure patient population and reduce hospital readmissions. Upstate has been honored previously by the American Heart Association/American Stroke Association for its Heart Failure program. For its work in the area of adult resuscitation, Upstate received the Get with the Get With The Guidelines® Resuscitation Gold Achievement Award.

Upstate has received this award for implementing specific quality improvement measures outlined by the American Heart Association for its work in saving the lives of patients who experience in-hospital cardiac arrests. More than 200,000 adults and children have an in-hospital cardiac arrest each year, according to the American Heart Association. The Get With The Guidelines-Resuscitation program was developed with the goal to save lives of those who experience cardiac arrests through consistently following the most up-to-date research-based guidelines for treatment. Guidelines include following protocols for patient safety, medical emergency team response, effective and

timely resuscitation (CPR) and post-resuscitation care. Upstate has been honored with Get with the Guidelines Quality Awards for the past several years.

- **Upstate wins grant to improve diversity and inclusion training**

Upstate Medical University is one of 24 institutions awarded a national grant designed to improve the quality of education and training to address building trust through diversity, health care equity, and inclusion in Internal Medicine training. The Alliance for Academic Internal Medicine (AAIM), the American Board of Internal Medicine (ABIM), the ABIM Foundation, the American College of Physicians (ACP), and the Josiah Macy Jr. Foundation have awarded a total of \$400,000, split among 24 projects at medical schools and training programs. Upstate received \$10,000 for its project, called “Learning to TALK (Treat All Like Kin) & Education Through Theater Arts: An Innovative Teaching Curriculum Designed to Promote Trustworthiness Through Equitable Outcomes.” Award winners will use this funding to support programs that incorporate diversity, equity, and inclusion into internal medicine education and training. Selected projects emphasize inter-professional projects that incorporate members from across the care team. This communication training will be through Upstate’s Learning to TALK (Treat All Like Kin), also known as LTT, and Education Through Theater Arts curriculum, known as ETTA, which both occur during the residents’ ambulatory rotations. Learning to Talk is held in Upstate’s Clinical Skills Center which allows for simulated, recorded encounters followed by a resident-patient/actor debrief and resident group debriefs with a faculty team member. Education Through Theater Arts is a non-verbal vignette session between residents and student actors from Syracuse University’s College of Visual and Performing Arts and professional actors from the Building Company Theater at Syracuse Stage. This curriculum combines medical science with theater arts to enhance the learner’s understanding of how body language impacts the provider-patient relationship. These exercises assist learners in how to express their ideas, and how to be more present and in the moment when attending to the needs of others.

- **Upstate’s Respiratory Therapy Program honored with credentialing success award**

The Respiratory Therapy Program in the College of Health Professions has been recognized with the Distinguished RRT Credentialing Success Award by the Commission on Accreditation for Respiratory Care (CoARC). To receive the Distinguished RRT Credentialing Success Award, programs submit reports detailing credentialing rates and other highlights. Award honorees are required to have credentialing success rate of more than 90 percent. The award is presented as part of CoARC’s efforts to value the Registered Respiratory Therapist (RRT) credential as a standard of professional achievement. The award is in addition to the Upstate program’s CoARC accreditation, which runs through 2025. This is the fifth time the Respiratory Therapy Program has received the honor. The role of the registered respiratory therapists (RRT) has been in the spotlight recently as they have played a critical role in the care of COVID-19 patients during the pandemic. Many severely ill COVID-19 patients are put on ventilators to help them breathe, requiring the assistance of a respiratory therapist whose role it is to operate the ventilator and assess a patients’ oxygen levels, lung function, among other responsibilities. Upstate offers a bachelor’s degree in respiratory therapy. The 21-month program prepares the student for entry-level as well as advanced level practice. Upstate provides a high-quality education through valuable experiences and opportunities through our expert faculty, state-of-the-art equipment and classrooms, and excellent clinical experience through our many exceptional clinical affiliates. More information on Upstate’s respiratory program is available [here](#).

- **Upstate’s She Matters and You Matter programs awarded grant from medical technology firm**

The Upstate Foundation has received an \$81,770 grant to expand the Upstate Cancer Center’s She Matters breast cancer outreach and education program as well as support the launch of You Matter, a health careers pathway initiative for Syracuse youth. The grant was awarded by Hologic, a global medical technology innovator primarily focused on improving women’s health and well-being through early detection and treatment.



- She Matters is a peer-to-peer outreach and education program created by the Upstate Cancer Center to reduce breast cancer disparities and improve health outcomes by making annual breast cancer screening a priority among low-income, primarily Black and Hispanic women living in public housing in Syracuse. The program, founded in 2014, works closely with the residents of the Syracuse Housing Authority. Key to the success of the program is the recruitment of public housing residents to serve as specially trained Resident Health Advocates. As advocates, they provide culturally appropriate breast health education; navigation to screening mammography; and, when necessary, access to prompt diagnostic and treatment services. The goal of the program is to eliminate barriers to health care, change behavior, and make annual breast cancer screening a priority. Over the past eight years, She Matters has reached more than 6,000 women and facilitated breast screening in more than 800 women over 40.
- Also funded by the Hologic grant is You Matter, a healthcare careers pathway for local youth. The program reaches out in non-traditional ways to elementary, middle, and high school-aged students, and works one-on-one with each student in exploring and identifying the academic pathway needed to gain a rewarding healthcare career. Upstate says that are more than 1,000 local youth are eligible to participate in the program.

The grant is part of Hologic's pledge to donate \$5 million to improve women's health; science, technology, engineering and math (STEM) education, and social and racial inequity initiatives, particularly in healthcare.

- **ALS Center's at-home monitoring program, launched during pandemic, wins funding to expand and further assess benefits**

As a nationally certified center of excellence for clinical care and research, Upstate's ALS Research and Treatment Center offers multidisciplinary care. Multiple providers render services at each clinic visit which is proven to improve the quality of life and help ALS patients live longer. But when COVID-19 hit and telemedicine was implemented, keeping the same high level of care became more complex. ALS Center Director Eufrosina Young, MD, said the clinic staff realized quickly that virtual visits alone were not sufficient to manage their patient population. There were technical challenges with different therapists engaging a patient on video conference platform. Pulmonary function laboratory services worldwide became unavailable to prevent risk of exposure from aerosol-generating procedures. To solve the problem, in July 2020 the clinic launched a new home monitoring initiative with \$5,000 in funding from the Upstate Foundations' Tim Green Endowment to Defeat ALS. With the funding, the ALS Center purchased single patient-use, handheld turbine spirometers that use a cellphone application to test vital capacity. Respiratory therapists from Upstate provide coaching online while patients are able to perform breathing tests from the safety of their homes. The real-time display of data is accessed through a clinical dashboard by providers at the center. Patients are able to test at a much greater frequency and efficiency which allows for more timely treatment should their care need to be adjusted based on their breathing function. Young said the new system followed a model used by the US Cystic Fibrosis Foundation. Amyotrophic lateral sclerosis (ALS), often referred to as "Lou Gehrig's disease," is a progressive neurodegenerative disease that affects nerve cells in the brain and the spinal cord. People with ALS eventually lose the ability to initiate and control muscle movement, which ultimately leads to total paralysis and death within two to five years of symptom onset. There is currently no cure for the disease. The cause of death in ALS is respiratory failure and monitoring pulmonary function is critical. Young said from July 2020 to June 2021, the center monitored 24 patients and received feedback that patients, many of whom are incapacitated or were concerned about coming in due to Covid-19, liked the option of home monitoring. To keep the program going, Young secured a research grant from Mitsubishi Tanabe Pharma America in 2021. The grant, which totals over \$300,000 for two years, has allowed the center to continue and expand the program. Young said the center has monitored 50 patients from home just this past year alone. The grant also includes a

second site, Atrium Health in North Carolina, that is working to replicate Upstate's program. Upstate's clinic has been part of the ALS Association's network of Certified Treatment Centers of Excellence since 2005, and the designation signifies that the center exhibits the highest levels of established national standards of care. It is one of only 72 in the country and the only certified center in the 48 counties served by the Upstate Chapter. Upstate's ALS center staff provides specialized medical care, as well as occupational, physical, speech and language, dietary, spiritual palliative and respiratory therapy. Social services and counseling also are provided, as well as support groups for patients and their families. This collaborative environment provides patients with a comprehensive evaluation and treatment plan designed to maximize function and quality of life. Home monitoring is in line with delivering personalized care with the goal of increasing duration of survival and rendering ALS as a livable disease in the near future. In support of its work and certification, Upstate's clinic received \$50,000 from the ALS Association and its Upstate New York Chapter in May 2022. The funding, which has been annual since 2016, supports clinical care and personnel development that are vital to maintaining the services of a fully staffed clinic. Young said the ALS Center, through the support of Neurology Chair Luis Mejico, MD, and the UHCC Medical Director Anuradha Duleep, MD, has seen tremendous growth both in staffing and patients this past year. That's not to say there are more patients with ALS, just more people seeking out Upstate's unique care.

- **Upstate earns recognition for care of older adults**

Upstate Medical University has been named an Age-Friendly Health System which highlights its commitment to providing the best care for older patients. It joins 2,800 other medical centers across the country that have earned the recognition, which focuses on providing a set of four evidence-based elements of high-quality care, known as the 4Ms, to older adults: What Matters, Medication, Mentation, and Mobility. Upstate has earned a Level 1 designation, and in the fall plans to apply for Level 2. The Age-Friendly Health Systems designation is an initiative of the John A. Hartford Foundation and the Institute for Healthcare Improvement (IHI), in partnership with the American Hospital Association (AHA) and the Catholic Health Association of the United States (CHA), designed to meet this challenge of caring for an aging population head on. At Upstate, the Age-Friendly initiative centers on the Transitional Care Unit (TCU) at Upstate Community Hospital and ambulatory care through the Department of Geriatrics. The 20-bed TCU provides care for patients who no longer need acute care during a regular hospital stay but aren't ready to go home yet. The Department of Geriatrics ambulatory care provides outpatient consultations for older patients. The cross-functional team, in both transitional and ambulatory care, includes nursing, physical therapy, pharmacy and hospital leadership. The team also includes an older adult from the local community, 96-year-old Charlotte "Chuckie" Holstein, founder of F.O.C.U.S. Greater Syracuse. The initiative is based on a series of practices focused on addressing four essential elements of care for older patients:

- What Matters: Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.
- Medication: If medication is necessary, use Age-Friendly medications that do not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.
- Mentation: Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care.
- Mobility: Ensure that older adults move safely every day in order to maintain function and do What Matters.

In conjunction with the Age Friendly initiative, Upstate was awarded a \$10,000 grant from the Health Foundation for Western and Central New York to enhance its electronic medical record system to include age friendly modules for providers. The Health Foundation is an independent

private foundation that advocates for continuous improvement in health and health care by investing in the people and organizations that serve young children and older adults.

- **Upstate earns reaccreditation for comprehensive bariatric surgery program**

The Upstate Bariatric and Metabolic Surgery Program has received reaccreditation as a Comprehensive Center by the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®), a joint Quality Program of the American College of Surgeons (ACS) and the American Society for Metabolic and Bariatric Surgery (ASMBS). MBSAQIP-Accredited centers offer preoperative and postoperative care designed specifically for patients suffering with obesity. The three-year reaccreditation will remain in effect until March 2025. Jacquelyn D Turner, BSN, RN, bariatric program coordinator said the process to get accredited is a voluntary one but that Upstate takes pride in having the distinction. To earn MBSAQIP reaccreditation, the Upstate program demonstrated compliance with key criteria for staffing, training, facility infrastructure and patient care pathways, ensuring its ability to support patients with obesity. The center also participates in a national data registry that yields semiannual reports on the quality of its surgical outcomes and identifying opportunities for quality improvement. MBSAQIP accredits inpatient and outpatient bariatric surgery centers in the United States and Canada that have undergone an independent, voluntary, and rigorous peer evaluation in accordance with nationally recognized bariatric surgical standards. This accreditation not only promotes uniform standard benchmarks, but also supports continuous quality improvement. Turner said the bariatric surgery is a big life change, and big decision and that the Upstate program, located at Upstate Community Hospital, does an outstanding job of supporting patients beyond their surgery date, maintaining a relationship with them. Patients come in several times the first year after their surgery but are welcome to have consultations about things like nutrition, exercise or just support any time. The program also offers monthly support groups.

- **Upstate Earns Blue Distinction® Centers+ Designation for Cardiac Care**

Excellus BlueCross BlueShield has recognized Upstate University Hospital's Downtown Campus with a Blue Distinction Centers+ for Cardiac Care designation, as part of the Blue Distinction Specialty Care program. Blue Distinction Centers are nationally designated providers that show expertise in delivering improved patient safety and better health outcomes, based on objective measures that were developed with input from the medical community and leading accreditation and quality organizations. According to the American Heart Association (AHA),<sup>[1]</sup> cardiovascular disease is the leading cause of death globally and is expected to claim more than 23.6 million lives annually by 2030. Blue Distinction Centers+ for Cardiac Care seek to empower patients with the knowledge and tools to find quality cardiac care. To receive a Blue Distinction Centers+ designation, hospitals must demonstrate expertise in delivering safe and effective cardiac care, focusing on cardiac valve surgery, coronary artery bypass graft (CABG), and percutaneous coronary interventions (PCI) episodes of care. Hospitals receiving a Blue Distinction Centers+ designation must also demonstrate better cost-efficiency compared to their peers. Only those hospitals that first meet nationally established quality measures for Blue Distinction Centers are considered for designation as a Blue Distinction Centers+. Hospitals recognized with this designation are assessed using a combination of quality information supplied by hospitals and third-party data registries, and cost measures derived from Blue Cross and Blue Shield companies' medical claims. Since 2006, the Blue Distinction Specialty Care program has helped patients find quality specialty care in the areas of bariatric surgery, cancer care, cardiac care, cellular immunotherapy, fertility care, gene therapy, knee and hip replacements, maternity care, spine surgery, and transplants, while encouraging health care professionals to improve the care they deliver. Research shows that compared to other providers, those designated as Blue Distinction Centers demonstrate better quality and improved

outcomes for patients. On average, Blue Distinction Centers+ are also 20 percent more cost-efficient than non-Blue Distinction Center+ designated providers.

- **Pediatric remission rates for chronic gastrointestinal diseases soar at Upstate's Golisano clinic**

In the last six years, the pediatric gastroenterology inflammatory bowel disease (IBD) program at Upstate Golisano Children's Hospital has drastically increased the number of children who are in remission for their chronic disease. The remission rate for the children with IBD seen in the Karjoo Family Center for Pediatric Gastroenterology improved from 60 percent in 2013 to 87 percent in 2022. Prateek Wali, MD is director of the program. Inflammatory bowel disease includes the autoimmune conditions of Crohn's disease and ulcerative colitis. Both can present with debilitating symptoms that include frequent diarrhea, blood in the stool, abdominal pain, weight loss and poor growth treated with chronic medications and in severe cases, require surgery. Wali said IBD is increasing in frequency, and the largest increase in pediatrics is in children under the age of 12. It tends to be more severe in children than in adults. Currently there are over 200 patients with IBD at Upstate Golisano, up from 100 in 2010—a bigger increase than it seems because many of those 100 patients from 2010 have outgrown the pediatric program. Wali attributes Upstate's success in increasing remission rates to two things. The first is a collaborative of pediatric IBD centers called ImproveCareNow. Upstate joined the network of more than 100 centers in 2013. The collaborative enables patients, families, clinicians, and researchers to work together in a learning health care system to accelerate innovation, discovery and the application of new knowledge. The coalition consists of more than 100 centers with 970 pediatric gastroenterologists caring for 30,000 children with IBD. As a group, 82 percent of patients are in remission. Being in the coalition gives Upstate access to a dynamic database. When patients are diagnosed with IBD they are registered in the database and each time they come to the clinic their symptoms, labs, imaging and treatments are all put into it. Within the week, Upstate doctors can download data on how these patients are doing compared to age-matched patients around the country with similar disease locations. Wali said the second reason for Upstate's success is its personalized approach. The group includes Wali, nurse practitioner Julie Albanese, nurse Kathy Root, research assistant Lisa Blystone, and dietician Kellie Wall. Wali said the group meets weekly and also participates in the ICN biannual meetings. Upstate also now utilizes some highly successful therapies, one of which isn't widely used in the United States. Partial enteral therapy, in which children with newly diagnosed Crohn's disease take in most of their calories in a liquid formula for eight weeks is equally successful for induction of remission without using steroids. This treatment avoids the side effects of steroid therapy. Wali said it is a difficult treatment to attempt given social expectations around mealtimes and school but that Upstate has had more than 20 patients use this treatment with the support provided by the clinic and parental involvement. Upstate has also participated in multiple multi-centered pediatric IBD clinical research studies that have brought real change to the treatment and management of children with IBD. Other standards of care he helped initiate when he arrived at Upstate in 2010 include capsule endoscopy where patients swallow a camera shaped like a pill that takes thousands of pictures of as it moves through the digestive system for diagnosis of small bowel Crohn's disease. Upstate also utilizes MRI enterography, which is a specialty MRI used mainly for Crohn's disease using an oral contrast that distends the bowel, allowing doctors to see how well the bowel is working and assess areas unreachable by endoscopy and colonoscopy. Finally, Wali said Upstate covers a large catchment area and is working to improve access to care. The practice now includes six pediatric GI attendings and three specialty pediatric nurse practitioners.

- **Upstate foot care program wins Community Hope Award from Rescue Mission Alliance**

Upstate Medical University's Helping Hands for Forgotten Feet, which provides monthly footcare and health screenings to women and men experiencing homelessness, has received a 2022 Hope Award from the Rescue Mission Alliance. Upstate won a Community Hope Award for its monthly clinic held at the Kiesewetter Shelter on Dickerson Street in Syracuse. Helping Hands for Forgotten

Feet (HHFF) started about 10 years ago and is one of Upstate's Service-Learning groups. Run by four student leaders, a group of eight first- and second-year medical students meet monthly at the shelter to run the clinic with the help of Barbara Feuerstein, MD, associate professor of medicine, who oversees the program, and several local podiatrists who volunteer their time. Feuerstein, an endocrinologist at the Joslin Center, does a general health screening that includes a diabetes screening with the help of the students. Feuerstein said men and women who experience homelessness often have foot issues because they are on their feet all day, often wearing old shoes that are either too small or too big and without a way to care for their feet. The clinic provides services from bathing to nail and callous trimming, to fungus and wound care and neuropathy care. Ryan D'Amico, DPM, of Syracuse Podiatry, who has volunteered since the program's inception, said the program is important because many of the patients never realized there are solutions to their foot problems. Feuerstein and D'Amico both stressed how grateful the patients often are. As helpful as it is for the patients, it is also a valuable experience for the medical students. The clinic serves about 20 to 25 patients each month, and Alexis said they are starting to see return patients. Recently, one such patient addressed a volunteer by name and asked to be screened by him. HHFF has ongoing supply drives for toiletries, coats, hats, mittens, shoes, socks and items for foot care such as lotion, soap, emery boards, pumice stones and nail clippers. Items can be dropped at the Joslin Center for Feuerstein.

- **Upstate recognized as Center for Comprehensive MS Care**

The Upstate Comprehensive Multiple Sclerosis Center, a leading provider of care for people living with multiple sclerosis in Syracuse, has been officially recognized as a Center for Comprehensive MS Care through the National Multiple Sclerosis Society's Partners in MS Care program. Upstate is one of only three centers in the state to receive this recognition. This formal recognition honors Upstate's commitment to high-quality MS care. The Comprehensive MS Care Center distinction is appointed by a local and national committee, and the organization must demonstrate a coordinated, multi-disciplinary care for MS. Upstate Neurology's clinicians continually demonstrate a wealth of knowledge, experience, and the important attention to detail necessary in treating people living with MS. Upstate provides diagnostic and management services for adults and older children with MS, possible MS, other demyelinating diseases (e.g. transverse myelitis, acute disseminated encephalomyelitis, neuromyelitis optica, MOG-associated disease) and related disorders (e.g. sarcoid, vasculitis, central nervous system auto-immune diseases. State-of-the-art neuro-imaging (especially MRI) assists with accurate diagnosis as well as aiding MS management. Upstate is also engaged in clinical and translational MS research, including experimental clinical trials and epidemiological studies. Multiple sclerosis is an unpredictable, often disabling disease of the central nervous system that disrupts the flow of information within the brain, and between the brain and body. Symptoms vary from person to person and range from numbness and tingling, to walking difficulties, fatigue, dizziness, pain, depression, blindness and paralysis. The progress, severity and specific symptoms of MS in any one person cannot yet be predicted, but advances in research and treatment are leading to better understanding and moving us closer to a world free of MS. Most people with MS are diagnosed between the ages of 20 and 50, with three times more women than men being diagnosed with the disease. A study led by the National MS Society estimates that nearly 1 million people are living with MS in the United States; twice as many than previously thought.

- **Upstate officially named a Bee Campus**

Upstate Medical University's campus has been designated a Bee Campus USA affiliate, part of a nationwide program to conserve native pollinators. By joining the program, Upstate commits to work to conserve native pollinators, such as bees, and to make campus a better place for pollinators. Upstate officials said the initiative fits perfectly into Upstate's mission to be a leader in holistic health care, and underscores the relationship between sustainability and health care.

Upstate joins 157 other campus affiliates in the program, including nearby Syracuse University and SUNY College of Environmental Science and Forestry. Bee Campus USA provides a framework for campus communities to work together to conserve native pollinators by increasing the abundance of native plants, providing nest sites, and reducing pesticide use. Campus affiliates make commitments to carry out these steps.

- **Upstate awarded \$1.1 million to establish a suicide prevention center**

Upstate Medical University will receive \$1.1 million in federal funds to establish a Suicide Prevention Center, an umbrella center under which its current programs and outreach can be coordinated and supported. The funding was secured by U.S. Sen. Majority Leader Charles Schumer, Sen. Kirsten Gillibrand and former Congressman John Katko. With \$1.1 million in federal support and additional funding, the Upstate Suicide Prevention Center would provide better access to effective prevention and treatment strategies for high-risk youth and young adults in Central New York. Its primary mission would be to create and foster a continuum of care, from primary prevention to case identification to early intervention to recovery-based treatment. The center would coordinate and expand current cutting-edge interventions developed and applied at Upstate, and also support the prevention initiatives currently being planned in school districts across Central New York through training, outreach, and other activities. The Suicide Treatment Center is the newest of Upstate's ground-breaking initiatives. In 2017, Gregory started the Psychiatry High Risk Program (PHRP) for suicidal youth and young adults, an innovative program focused on transformational healing and recovery, using an evidence-based treatment called dynamic deconstructive psychotherapy, which was also developed at Upstate. The program has served more than 600 individuals and has demonstrated more than a 90 percent reduction in hospitalizations and other outcomes, and is the only program of its kind in the country. The PHRP was recently awarded the designation as "a best practice in suicide prevention" by the national Suicide Prevention Resource Center. Additionally, Upstate is New York's principal site for the Zero Suicide (ZS) Initiative. As part of the initiative, Upstate established universal suicide screening protocols and safety planning in its adult emergency rooms and psychiatric units. In 2019, the ZS initiative was expanded to the adolescent behavioral unit. In 2020, Upstate helped expand a brief, innovative, evidence-based treatment program called Attempted Short Suicide Intervention Program (ASSIP) for adults attempting suicide. ASSIP has been shown to reduce suicide attempts and hospitalizations in high-risk adults. Upstate is one of the leading institutions in the U.S. providing ASSIP to suicidal individuals and is a site for a National Institute of Mental Health grant further evaluating its effectiveness. Also In 2020, Upstate also established the first partial hospitalization program (Intensive Outpatient Program, IOP) for suicidal adolescents in the region, and involves daily application of dialectical behavior therapy for adolescents (DBT-A) for teens and their families. DBT-A is the most firmly established treatment for suicidal adolescents and is an important component in a continuum of care. Upstate also established a dedicated interventional psychiatry program for adults suffering from treatment-resistant depression and suicide ideation, adding enhanced electroconvulsive therapy, transcranial magnetic stimulation, and vagal nerve stimulation services, and instituting an esketamine treatment program. Upstate was one of the sites for the initial development of vagal nerve stimulation therapy and one of the only clinical sites offering ongoing programming on a wide scale.

- **Upstate earns 'Most Wired' recognition**

Upstate University Hospital has earned the 2022 CHIME Digital Health Most Wired recognition as certified level 8 for both Acute and Ambulatory settings. The honor comes from the College of Healthcare Information Management Executives (CHIME), an executive organization dedicated to serving chief information officers (CIOs), chief medical information officers (CMIOs), chief nursing information officers (CNIOs), chief innovation officers (CIOs), chief digital officers (CDOs) and other senior healthcare IT leaders. The CHIME Digital Health Most Wired program conducts an annual survey to assess how effectively healthcare organizations integrate core and advanced technologies

into their clinical and business programs to improve health and care in their communities. The Acute and Ambulatory-level ranking means the institution has leveraged its technology to improve patient care, the patient experience and provide greater access to health care services. More than 38,000 organizations were represented in the 2022 Digital Health Most Wired program, which this year included four separate surveys: domestic, ambulatory, long-term care and international. The surveys assessed the adoption, integration and impact of technologies in healthcare organizations at all stages of development, from early development to industry leading. Upstate has received Most Wired designations annually since 2016. The Digital Health Most Wired survey and recognition program serves as a comprehensive “Digital Health Check-up” for healthcare organizations across the world. As success in digital health increasingly determines the quality of patient care, the scope of the CHIME Digital Health Most Wired survey reflects the progress of leading healthcare providers as they reinvent healthcare for a new century.

- **Team Upstate celebrates 20 years of service**

Service always has been a hallmark of Upstate’s mission, after all it is the area’s largest employer, but 20 years ago it strengthened its community service outreach with the introduction of Team Upstate. The push to identify Upstate’s beneficence with the Team Upstate moniker paid off as it fielded the largest teams of various walks and runs, like the annual Heart Walk. Howe credits many employees and Upstate leadership for supporting Team Upstate’s efforts, which have expanded over the two decades of service. Upstate’s Center for Civic Engagement, which supports student outreach, regularly works with Team Upstate ensuring that all of the university’s outreach efforts no matter who’s doing them find support, such as the students’ Rescue Mission clinic for foot care, among others. One of the more recent endeavors for Team Upstate is the support for The United Way of Central New York’s Emerging Leaders United program at Upstate. The program is supported by young employees who “demonstrate leadership by helping make lasting change” in the community. Close to 30 Upstate employees are involved in Emerging Leaders United (ELU). The group’s co-chair, Matthew Capogreco says the program provides “the ability to showcase the good work Upstate brings to the community. ELU members have done exhaustive service, including supporting UWCNY’s Day of Caring, the Salvation Army Christmas Bureau, monthly work with the Samaritan Center and Sarah’s Guest House. Another highlight of Team Upstate’s history is the Your Cause program, which encourages Upstate employees and students to nominate a local non-profit organization whose mission is in line with the mission of Upstate. The selected organization is featured as Team Upstate’s “Your Cause” partner for the year and receives support for events and outreach. Since its inception, Your Cause has benefited agencies, such as the Rescue Mission Emergency Youth and Runaway Shelter, In My Father’s Kitchen, Clear Path for Veterans, OnPoint for College, Chadwick Residence, and most recently Sarah’s Guest House. Accolades to Team Upstate include the Exceptional Corporate Volunteer award presented by the Corporate Volunteer Council and the United Way Spirit of Caring Volunteer Service award, among others.

- **Upstate’s She Matters program receives \$50,000 grant from the Kay Yow Cancer Fund**

The Kay Yow Cancer Fund is proud to announce its most recent underserved grant in a check presentation to Upstate Cancer Center in Syracuse. The \$50,000 grant was awarded to the She Matters program, in conjunction with the Upstate Foundation, and will be used to support their peer-to-peer community outreach program, aimed at reducing breast cancer disparities in low-income communities, particularly among Black and Latino women, in public housing. “The Kay Yow Cancer Fund has been committed to fulfilling Coach Kay Yow’s vision of providing quality cancer healthcare for underserved women since 2007. This grant is an extension of that vision and will undoubtedly impact the lives of many women,” said Kay Yow Cancer Fund, SVP Programming, Jenny Palmateer. She Matters is a peer-to-peer community outreach program of the Upstate Cancer Center to reduce breast cancer disparities in low-income, primarily Black and Latino women living in public housing in Syracuse. Working in partnership with the Syracuse Housing Authority, residents

are recruited to serve as specially-trained community health workers (CHWs). CHWs provide breast health education, offer support from navigation to screening mammography, and improve access to necessary diagnostic and treatment services. The goal is to eliminate healthcare barriers, change behavior and make annual breast cancer screening a priority. Since its establishment in 2014, She Matters has reached over 3,500 women of all ages and facilitated screening in over 650 women ages 40 and above.

- **Upstate University Hospital Downtown Campus accepted as a Blue Distinction Center for Transplant**

Upstate University Hospital's Downtown Campus has been recognized by Excellus BlueCross BlueShield with a Blue Distinction® Centers for Transplants designation for kidney transplant. Specifically, Upstate has earned a transplants designation for Adult Deceased Donor Kidney, Adult Living Donor Kidney, and Pediatric Kidney. The new kidney transplants designations for Adult Deceased Donor Kidney, Adult Living Donor Kidney, and Pediatric Kidney are a result of expansion of the Blue Distinction Centers for Transplants program by Blue Cross Blue Shield Association (BCBSA) to include higher quality kidney transplant services within the BCBS network. To receive a Blue Distinction Centers for Transplants designation for kidney transplants, a health care facility must demonstrate success in meeting nationally established, objective quality measures along with delivering higher quality transplant services in the Blue Cross and Blue Shield (BCBS) network. Quality measures used in the evaluation are publicly reported by the Scientific Registry of Transplant Recipients (SRTR). All Blue Distinction Centers for Transplants facilities must be fully accredited by a national accrediting organization, meet the Centers for Medicare & Medicaid Services (CMS) certification requirements, and adhere to transplant guidelines from the United Network for Organ Sharing (UNOS). Upstate performed just over 100 kidney transplants last year, up from 61 in 2020 when the Covid pandemic caused limited kidney transplantation. Upstate's transplant program has been nationally recognized for excellence in patient outcomes. In fact, the success rates for the Upstate transplant program is equal to, or in most cases exceeds, the national averages as reported by the United Network for Organ Sharing (UNOS) and the Scientific Registry of Transplant Recipients (SRTR). The program maintains its record of successful outcomes despite treating some of the sickest and most challenging patients. Blue Distinction Centers for Transplants have demonstrated their commitment to quality care, resulting in better overall outcomes for transplant patients. They offer a broad range of transplant services through a coordinated, streamlined transplant management program. To date, Blue Distinction Centers for Transplants has designated more than 149 facilities nationwide—with some facilities being designated for more than one transplant type to represent a total of more than 365 transplant programs—that meet its evidence-based selection criteria. According to the National Kidney Foundation, kidney diseases such as Chronic Kidney Disease (CKD) and end-stage renal disease (ESRD) are the ninth leading cause of death in America, impacting nearly 37 million Americans.[1] With more than 23,000 kidney transplants performed in the United States[2], according to UNOS, kidney is the top transplant procedure for the year, highlighting the important role that the Blue Distinction Centers for Transplants for the kidney designation will play in providing patients with the knowledge and tools they desire along with the specialized care they need.

- **Upstate's Burn Center receives national recognition for smoke alarm giveaway program**

Upstate University Hospitals' Clark Burn Center has been awarded the 2023 American Burn Association Burn Prevention Award for exceptional burn prevention. The ABA recognizes the Clark Burn Center as a prevention leader in the burn community by achieving wide-scale reduction of burn injuries and progress toward the elimination of burn injuries by utilizing community partnerships. The center started its own smoke alarm giveaway program two years ago called "Install the Device & Save a Life." The program provides participants with a 10-year smoke alarm, along with education about how to install the alarm themselves. Burn Program Manager Tamara



Roberts, MSN, said this program is unique in that most smoke alarm programs require an appointment and a trained staff member to install it, or rely on the local fire department to install it. Roberts and Kara Judd, EMT-B and Clark's burn data coordinator, are both nationally certified as Fire Life Safety Educators who have spearheaded this effort, along with representatives from Upstate Poison Control and Safe Kids. Roberts said they look at recent burn data to see where there have been fatalities or injuries from fires and then they target that area for a giveaway. They have held two giveaways, one in the city of Syracuse at Brady Market and one in East Syracuse at Wegmans. The next one will take place this spring in North Syracuse. They distributed 164 smoke alarms and partnered with local fire departments at the events, who offered participants information on exit drills in the home, fire safety, and prevention. Upstate Poison Control and Safe Kids are also offered valuable education on home safety and carbon monoxide poisoning. Liz Sapio, Safe Kids Upstate New York Coordinator; Lee Livermore, Public Health Educator for the Upstate New York Poison Center and Khadijah Osborne, RN, from the Burn Unit are also involved in the programming. Funding from the Upstate Foundation and Burn Foundation of CNY has paid for the smoke alarms. Roberts said the goal is to continue the program and expand it outside of Onondaga County and to find corporate sponsorships to make it sustainable.

- **SUNY Shared Governance Award for AY 2022-2023**

SUNY Upstate Medical University has been selected to receive the State University of New York's Shared Governance Award for academic year 2022-2023. The Selection Committee was impressed with the efforts and progress made by Upstate Medical over the past 10 plus years. Upstate Medical's leadership and Faculty Council (past and current chairs of the Council), with the assistance of students, faculty and administrative staff have worked intentionally and collaboratively to establish a solid shared governance ecosystem that now permeates throughout the campus, touching every governance entity. The spirit of ownership regarding SUNY Upstate Medical University's structures, policies, and practices creates trust and transparency that reflects the mission, vision, and values of Upstate Medical. You continue to promote an inclusive community while cultivating engagement/discovery and driving innovation, and there were many noteworthy aspects detailed throughout the nomination portfolio.

- **GEM Care Accreditation: Upstate receives top accreditation for its emergency care of older adults**

Upstate Community Hospital's Emergency Department has achieved the gold standard of accreditations for its care of older adults. Upstate's Geriatric Emergency Medicine Unit (GEM) at Community Hospital earned a Level 1 Designation—the highest possible. The accreditation comes from The American College of Emergency Physicians (ACEP), with support from The Gary and Mary West Health Institute and John A. Hartford Foundation. The group recognizes emergency departments that provide excellent care for older adults with its Geriatric Emergency Department Accreditation (GEDA) program. Jay Brenner, MD, medical director of the Community ED and GEM Care Unit, said Upstate is the only hospital in Central New York with a Level 1 accreditation. According to ACEP, the proportion of the U.S population over 65 is projected to nearly double from 43 million in 2012 to 83 million in 2050. Aging adults currently comprise 18 percent of total emergency department (ED) visits. This represents a 42 percent increase between 2002 and 2012 with anticipated continued expansion for decades to come. Upstate created GEM Care in 2013 under the medical direction of now-retired Jamie Ciccio, MD, in order to meet the complex needs of older adults. The unit is a dedicated section of the emergency department at Community Hospital. In 2014, the ACEP developed geriatric ED guidelines and more recently developed the voluntary accreditation program. The program includes three levels similar to trauma center designations, provides specific criteria and goals for emergency clinicians and administrators to target. A Level 1 emergency department must incorporate about two dozen best practices along with providing interdisciplinary geriatric education, and having geriatric appropriate equipment and supplies available. Upstate had to meet criteria or the accreditation in seven areas; staffing;

education; policies/protocols, guidelines and procedures; quality improvement, outcome measures equipment and supplies and physical environment. Staff in the unit receive specific education on caring for older adults and the unit is designed with their needs in mind. The space includes eight bays in a large room with natural light and soft flooring. It features things like handrails and digital clocks with larger numbers. The goal is for it to be a more comfortable environment that minimizes the onset of hospital induced delirium so common in older adults during long hospital stays. Goals are to get patients in and out as quickly and as safely as possible. Upstate's accreditation lasts three years, at which time it will have to apply for renewal.

- **Upstate awarded \$3.8 million to support medical services for people living with HIV/AIDS**

Upstate Medical University has been awarded \$3.8 million from the New York State Department of Health to enhance and expand three distinct services Upstate provides for young adults, women and all people living with HIV/AIDS. The project is a joint venture between Inclusive Health Services and the Pediatric Infectious Disease Division. SUNY Chancellor John B. King, Jr., applauded Upstate's efforts: "Upstate Medical University is an outstanding hub for medical research and care, and a crucial part of SUNY's mission to overcome society's biggest challenges through innovative solutions. There are still barriers for those living with HIV/AIDS, especially when it comes to medical treatment. I thank the New York State Department of Health for this \$3.8 million investment, which will help Upstate enhance and expand HIV/AIDS support services, while ensuring those coming to them for care get the outstanding treatment they need to live full and fulfilling lives." The first program funded is Upstate's Retention and Adherence Program, which is run through Inclusive Health Services. This program aims to improve medical outcomes for people living with HIV/AIDS and to reduce the incidence of new and/or untreated infections thus reducing the community-wide HIV burden through services aimed at addressing the patient's barriers to care. Asiago-Reddy said this program helps address the barriers people living with HIV/AIDS may face in getting treatment and taking medication for HIV/AIDS as well as other health problems they may have. Nurse case managers help patients with everything from family and mental health to transportation issues. This program works with about 50 clients who are struggling with taking their medications, helps to engage about 100 patients who are newly diagnosed with HIV or transferring care, and routinely reviews all patients in the practice who have elevated viral loads (about 100-150 per year) to see whether they might benefit from more intensive support. Another program supported by the grant funding is the Centers for Young Adults, directed by Leonard B. Weiner, MD, division chief of Pediatric Infectious Disease. The program provides multidisciplinary comprehensive and patient-centered medical care and supportive services to improve health care outcomes for adolescents and young adults, ages 13-29, who are living with HIV. The program is specifically designed to address mental health issues, substance use issues, discrimination, trauma, stigma, and social and racial inequities experienced by BIPOC (Black, Indigenous, and people of color) LGBTQ+ and historically marginalized adults and young adults living with HIV. Currently there are about 50 youth living with HIV being served in the adolescent/young adult program. "This grant funding allows us to provide patient-centered support services to address the unique needs of young people living with HIV. We will be able to offer specialty care designed to address social needs that have a huge impact on health and well-being," said Weiner. Finally, the grant will allow Upstate to establish services offered through the Family-Focused Health Care (FFHC) Program for Women. This clinic provides multidisciplinary comprehensive and patient-centered medical care and supportive services to BIPOC women and birthing individuals who are planning pregnancy, currently pregnant or active caregivers to children age 18 or younger and living with HIV. The program will be specifically designed to address discrimination, trauma, stigma and healthcare, social and racial inequities experienced by BIPOC, LGBTQ+ and historically marginalized women living with HIV. The biggest change to patient care will be the addition of a variety of family-focused supportive services including breast-feeding service and guidance. Reddy said until recently, people living with HIV/AIDS were told not to breast feed but as people are living longer with their viral loads suppressed, that

guidance has changed. The grant funding was awarded through the New York State Department of Health's Advancing Health Equity through Comprehensive Community-Based HIV Ambulatory Care Services program. Asiago-Reddy and Weiner said Upstate will be able to continue many of the services it is currently offering without interruption and will begin to offer the new services within the next three months.

- **Innovative mental health program at Upstate receives national award**

Upstate Medical University's Psychiatry High Risk Program has received the American Psychiatric Association's Silver Achievement Award. The Psychiatric Services Achievement Awards recognize creative models of service delivery and innovative programs for people with mental illness or disabilities. The Silver Award, the second highest award, comes with a \$2,000 prize, but what's most important is that the recognition comes at a time when mental health struggles of youth and adolescents are at an all-time high. Robert Gregory, MD, director of the Psychiatry High Risk Program and director of the Center for Suicide Prevention said that recent studies reveal startling statistics. In the most recent issue of the Journal of American Medical Association (JAMA), a study indicated that among youth, emergency department visits for suicidality increased five-fold in the last decade. Over the same period of time, the rate of suicide among adolescents climbed 62 percent. The 2021 CDC Youth Risk Behavior Survey indicated 22 percent of teens seriously considered suicide and 10 percent attempted suicide. Gregory started Upstate's Psychiatry High Risk Program (PHRP) in 2017 for suicidal youth and young adults, an innovative program focused on transformational healing and recovery, using an evidence-based treatment called dynamic deconstructive psychotherapy, which was also developed at Upstate. The program has served more than 600 individuals and has demonstrated more than a 90 percent reduction in hospitalizations and other outcomes and is the only program of its kind in the country. The PHRP was recently awarded the designation as "a best practice in suicide prevention" by the National Suicide Prevention Resource Center.

- **Upstate Golisano earns recertification as Gold Safe Sleep Hospital**

Upstate Golisano Children's Hospital has been recognized as a Gold Safe Sleep Hospital by Cribs for Kids, a Pittsburgh-based organization dedicated to preventing infant, sleep-related deaths due to accidental suffocation. Upstate Golisano received the honor for following safe sleep guidelines recommended by the American Academy of Pediatrics and by providing training programs for health care team members and family caregivers.

Those guidelines include:

- Training staff working with children under one year of age on infant safe sleep
- Providing infant safe sleep education to parents of infants prior to discharge
- Using wearable blankets in the nursery and inpatient pediatric units
- Conducting outreach activities related to infant safe sleep
- Sending a consistent message about safe sleep to families
- Role modeling what families should be doing at home

Upstate screens all patients under 1 year of age to make sure they have an independent safe sleep surface at home. If the assessment indicates they don't, Upstate provides a pack 'n play for families to take home and use free of charge. The pack 'n plays are provided to families for free thanks to funding from the Upstate Foundation and Safe Kids Upstate New York Coalition. In addition, The Safe Kids Upstate New York Coalition coordinates the community outreach and education component required for the Safe Sleep certification. Upstate Golisano received its first five-year certification as a Gold Safe Sleep Hospital in 2018.

- **Upstate receives grant for Public Health Scholars program**

Upstate Medical University's Public Health Scholars will expand in the upcoming year thanks to a grant from the Associated Medical Schools of New York (AMSNY). The \$100,000 grant will allow Upstate to increase enrollment in its Master's in Public Health degree, as a condition of acceptance

into the Medical Doctor (MD) program upon completion. The Public Health Scholars Program is a Special Pathway for historically disadvantaged populations. Upstate has three Special Pathways programs, but the Public Health Scholars pathway was previously unfunded, said Christopher P. Morley, PhD, chair of the Department of Public Health and Preventive Medicine. The one-year program is aimed at Black, Native American, Latino and female students as well as students of low socioeconomic status, or students from rural areas. It started with two students in 2014 as an outgrowth of the Medical Scholars Special Pathway, but without funding for the students. It has slowly grown over the past decade, with most years seeing four to six participants. This year, the program made nine offers to MD applicants for acceptance into the Public Health Scholars program, with seven acceptances and one deferral to a later year. The Public Health Scholars program has a dual mission to simultaneously contribute to the diversification of the health workforce, as well as to impart public health skills and knowledge to those who come through the program into medicine. Through this additional education, students learn to apply skills in research, advocacy, policy making, program design and evaluation, and the social sciences to the vexing problems of the day.

#### UPSTATE FACULTY, STAFF, & STUDENTS

- **Dr. Ann Botash recognized for work in area of child abuse pediatrics**

Ann Botash, MD, FAAP, a SUNY Distinguished Teaching Professor and professor of pediatrics and Upstate Golisano pediatrician who directs Upstate's Division of Child Abuse Pediatrics and the Child Abuse Referral and Evaluation Program, has been awarded a Special Recognition Certificate from the American Academy of Pediatrics in recognition of her work with child abuse issues and educational leadership. Botash is a respected leader in the field of child abuse pediatrics. She established the Child Abuse Referral & Evaluation Program at Upstate and cofounded the McMahan Ryan Child Advocacy Center. She was a longtime member of the New York state Children's Justice Task Force. She has led efforts to share her knowledge and expertise on the issue with other physicians, developing the Child Abuse Medical Provider Program (CHAMP), aimed at improving the examination, treatment, documentation, community referral, and management of suspected child abuse cases. Botash developed Upstate's Child Abuse Pediatrics Fellowship Program, which trains physicians to diagnose and treat child abuse and neglect. The fellowship is accredited by Accreditation Council for Graduate Medical Education (ACGME). The fellowship typically follows a three-year residency in general pediatrics. In addition to her work in child abuse, Botash has served in key leadership posts, including as interim chair of pediatrics and senior associate dean for faculty affairs and faculty development. In her post as senior associate dean, she has developed teaching workshops for faculty, supports the Building Excellent Teaching Skills (BEST), and has developed a micro-credential leadership training program for mid-career faculty. She is past president of the Ray E. Helfer Society, the primary sub-specialty society for physicians devoted to the problem of maltreated children. Botash has been the recipient of numerous accolades, including the Upstate Gold Standard Award for faculty excellence and an Upstate President's and SUNY Chancellor's Teaching Awards. In 2017, she was named a Distinguished Teaching Professor, one of the highest academic honors from SUNY.

- **Upstate researcher, Marie Bechler, PhD, receives prestigious award, named 2022 Klingenstein-Simons Fellow**

Upstate Medical University researcher Marie Bechler, PhD, has been named a 2022 Klingenstein-Simons Fellow. Bechler is one of 13 investigators across the United States, who received the prestigious award, given out to "highly promising, early career scientists" to support research that may "lead to a better understanding of neurological and psychiatric disorders." Bechler, an assistant professor in the Cell and Developmental Biology and Neuroscience and Physiology departments, is honored for her research that focuses on myelin sheaths, the lipid-rich membrane

encasing most neurons in the brain and spinal cord. Bechler explains how researchers are working on ways to restore myelin, as studies reveal changes in myelin structure occur in many neurological disorders like schizophrenia, Alzheimer's disease, and multiple sclerosis. Bechler became fascinated with myelin sheath-forming cells called oligodendrocytes when learning about their incredible abilities: expanding their size several thousand-fold to create the myelin membranes that maintain the health of neurons and control neuronal signaling. The Klingenstein-Simons Fellowship works to encourage early career scientists to pursue “high-risk, high reward” projects. Bechler says this is the kind of support that’s crucial in establishing a research team.

- **Two Upstate physicians honored with Excellence in Healthcare Awards**

Upstate Medical University physicians Gennady Bratslavsky, MD, and Kristopher Paolino, MD, have been selected as winners of the 2022 Excellence in Healthcare Awards. The awards are presented by the CNY Business Journal and BHG Financial. The award presentation, held Oct. 20, 2022, is available here: <https://www.cnybj.com/2022-excellence-in-healthcare-awards>.

- Dr. Bratslavsky, the Phillip Capozzi, MD, Professor of Urology and chair of the Department of Urology, was honored with the A. John Merola Lifetime Achievement Award. Bratslavsky’s career includes time at the NCI/NIH, where he served as a senior staff with the NCI's Urologic Oncology Branch since 2007. He also served as a clinical fellow in urologic oncology from 2005 to 2007. He also serves as a consultant to the Gastroenterology and Urology Devices Panel of the Medical Devices Advisory Committee for the U.S. Food and Drug Administration and as a Steering Committee member of the Genitourinary Oncology Center of Excellence for the Clinical Research Center of the National Institutes of Health. He has co-authored more than 150 peer-reviewed publications, numerous book chapters and editorials. He belongs to the American Urological Association (AUA), Onondaga County Medical Society and Society of Urologic Oncology. Since 2018, he has served as president of the SUO-CTC (Society of Urologic Oncology-Clinical Trial Consortium). Created, owned and operated by its members, the SUO-CTC is a clinical research investigator network of more than 180 clinical sites in the U.S. and Canada. This national alliance of leading academic and community-based uro-oncologists is committed to furthering urology research. Bratslavsky, who emigrated from Ukraine 30 years ago, and his wife have been raising money to provide medical supplies to Ukraine since the Russian invasion began in February.
- Dr. Paolino, director of clinical research at Upstate’s Institute for Global Health and Translational Sciences, has received the Excellence in Medicine award, honoring a physician whose job performance is considered exemplary by patients and staff. Paolino is a leading infectious disease researcher and clinician with a focus on tick-borne illnesses. He is much-sought-after speaker on tick-borne illnesses, especially Lyme disease. He has worked closely with the SUNY Center for Vector-Borne Diseases, based at Upstate, to improve tick identification and surveillance. Paolino is noted for his compassionate approach to caring for patients, many of whom are often dealing with numerous symptoms and uncertainty about their diagnosis and treatment. He is a go-to source for other physicians seeking answers to clinical questions about tick-borne diseases. As one nominator wrote, Dr Paolino “has established himself as an indispensable asset to our institution and region.”

- **Stephen V. Faraone, PhD tapped as one of five experts to recommend guidelines for the diagnosis and treatment of ADHD in adults**

Stephen V. Faraone, PhD, Distinguished Professor at Upstate Medical University, has been named to a special committee that will examine and ultimately recommend guidelines for the diagnosis and treatment of ADHD in adults. Faraone’s selection to the Steering Committee of the Guidelines Committee was announced by the American Professional Society of ADHD and Related Disorders (APSARD). As there are currently no guidelines in the United States, the APSARD guidelines will address this critical need for health care providers, patients, and the public. The APSARD guidelines

will be based on a critical review of the world's scientific literature, the APSARD-developed Adult ADHD Quality Measures initiative and expert opinion from a large panel of diverse nationally and internationally recognized ADHD researchers and clinicians in collaboration with other professional organizations. The consequences of untreated ADHD in adults are very well documented. The prevalence of ADHD in U.S. adults is 4.4% or ~11 million people. Many adults with ADHD go undiagnosed for decades or are misdiagnosed by providers. Surprisingly, 75% are not receiving treatment. The U.S. economic burden of adult ADHD is \$105 to \$194 billion annually, and the negative consequences on people's lives include higher risks of dropping out of school, losing jobs, financial debt, divorce, fractured relationships, substance use disorders, and co-occurring depression/anxiety. Adult ADHD treatment is currently provided by a broad range of health care providers with different educational backgrounds and in different practice settings. The creation of guidelines for ADHD in adults will allow all practitioners to benefit from the best evidence about diagnosing and treating the disorder. Faraone will be joined on the Steering Committee by four other leading experts in the field. They are Thomas Spencer, MD, Massachusetts General Hospital; Frances Levin, MD, Columbia University; Lenard Adler, MD, NYU Grossman School of Medicine; and David Goodman, MD, Johns Hopkins School of Medicine. The Steering Committee will direct the creation of guidelines by a group of approximately 30 colleagues with diverse backgrounds (psychiatrists, psychologists, primary care physicians, and advanced practice nurses). Faraone's research on attention deficit hyperactivity disorder has brought greater clarity to the heritable nature of the disorder, and he has received numerous national and international awards, honoring his lifetime of influential research in brain sciences and genetics. Faraone currently serves as president as president of the World Federation of ADHD. Last year, he was named a "world expert," for being one of the world's top scholars writing about mental disorders. He received the designation from ExpertScape, which places him in the top 0.1 percentage of scholars writing about mental disorders in the last decade. Faraone is the recipient of the Paul Hoch Award from the American Psychopathological Association, which honors a distinguished and currently active investigator who has produced significant, generative research, and the Ming Tsuang Lifetime Achievement Award from the International Society of Psychiatric Genetics for his significant and sustained contributions to the advancement of the field of psychiatric genetics. He is also a member of the Children and Adults with Attention Deficit/Hyperactivity Disorder Hall of Fame in recognition of outstanding achievement in medicine and education research on attention disorders and is a member of the Norwegian Academy of Arts and Letters.

- **Stuart Wright named to Becker's list of 75 academic medical center CFOs to know**

Stuart Wright, who has served as chief financial officer of Upstate University Hospital for nearly 15 years, has been named to Becker's Hospital Review's 2022 list of 75 top academic medical center CFOs to know. As CFO, Wright oversees all financial functions for the hospital as well as patient access services, utilization management and retail/contract pharmacy operations. Among Wright's accomplishments during his tenure as CFO is his role in facilitating and driving growth of the enterprise from \$500 million in annual revenues to now more than \$1.4 billion. Part of this growth was related to his key role in the successful acquisition and integration of Community General Hospital. He also led an organization wide re-engineering of revenue cycle processes, facilitated the growth of our retail pharmacy operations to over \$100 million in revenues in 3 years, and drove a paradigm shift in the organization toward financial disciplines, which has resulted in the hospital earnings profits in seven of the past nine years despite steep cuts to state support. During the COVID-19 pandemic, Wright has been instrumental in monitoring hospital finances, ensuring funding for needed resources to fight the pandemic and working closely with the state and federal governments to address the financial implications of COVID-19 on hospitals and promoting appropriate methodologies for distribution of funds. Prior to joining Upstate University Hospital, Wright served in other divisional CFO roles for both Cigna, Inc (a national healthcare insurer) and

Empire Blue Cross (a Medicare fiscal intermediary). Becker's Hospital Review is a leading publication covering hospitals and health systems.

- **Upstate researcher Tamara Jamaspishvili, MD, PhD earns national recognition for work developing an AI-based diagnostic tool**

Tamara Jamaspishvili, MD, PhD, assistant professor of pathology, has been named a 2022 Young Investigator by the Prostate Cancer Foundation (PCF). Jamaspishvili, who also serves as director of the SUNY Upstate Pathology Research Core (SUNY SPORE), is being recognized for her work developing artificial intelligence (AI)-based digital pathology method to help assess risk, treatment responses, and outcomes for prostate cancer patients. Her project could help guide physicians in the treatment management of patients with high-risk, advanced prostate cancer. This could also serve as a cost-efficient screening method in low-to-middle-income countries where genomic testing is still expensive and challenging. Jamaspishvili's research on tissue-based biomarkers using machine learning in prostate cancer showed the increased benefit of merging these disciplines for improved patients' prognoses and outcomes. Jamaspishvili highlights the need for biomarker research to advance precision medicine. "Developing bias-free, objective, quantitative approaches in pathology practices is a prerequisite for precision medicine and biomarker-guided clinical trials," she explains. Jamaspishvili and her team plan to assess three crucial tumor suppressor genes PTEN, p53 and Rb1, which are known to be found in patients with more aggressive diseases and who are unlikely to respond to hormone therapy. They hope by examining scanned prostate cancer tissue, they can begin to unravel complex cellular and molecular relationships predicting disease progression, duration and response to hormonal treatment, and the development of hormone-resistant prostate cancer. The PCF awards about two dozen researchers a year who they identify as future leaders who will "keep the field of prostate cancer research vibrant with new ideas" with career and project support.

- **Upstate's Dr James Knoll elected president of the American Academy of Psychiatry and the Law**

Upstate's James L. Knoll, IV, MD, has been elected as the 49th president of the American Academy of Psychiatry and the Law. The American Academy of Psychiatry and the Law (AAPL, pronounced "apple") is an organization of psychiatrists dedicated to excellence in practice, teaching, and research in forensic psychiatry. Founded in 1969, AAPL currently has more than 2,000 members in North America and around the world. (<https://www.aapl.org/>). In 2020, the AAPL honored Knoll with the Seymour Pollack Award. The Seymour Pollack Award is given to forensic psychiatrists who have made distinguished contributions to the teaching and educational functions of forensic psychiatry. Knoll is professor of psychiatry and director of Forensic Psychiatry at Upstate Medical University. He serves as clinical director of Central New York Psychiatric Center, a secure inpatient forensic psychiatric hospital in Marcy, N.Y. He joined Upstate in 2006. He has served as an expert witness in cases of national prominence such as the "Cleveland Strangler" serial murder case of Anthony Sowell, and the "137 shots" Cleveland Police shooting case. He is emeritus editor-in-chief of Psychiatric Times and has been widely published on the subject of mass violence. He serves as committee chair on threat assessment for the Onondaga County School Safety Task Force. He is an affiliate fellow of the International Criminal Investigative Analysis Fellowship (ICIAF) and teaches basic psychiatry and the law to FBI agents at the National Academy in Quantico.

- **Baldwin Fund honors Upstate's Nancy Prott**

Nancy A Prott, assistant to the Office of the President, has been honored by the Carol M. Baldwin Breast Cancer Research Fund of CNY with its annual Humanitarian Award. Prott received the honor at the Fund gala Nov. 4. Prott was recognized for her unyielding support of the Fund, including her longtime dedication to raising funds for breast cancer research through numerous Fund events, including its annual A Run for THEIR Life. The Fund has recognized several Upstate employees over the years, including surgeon Lisa Lai, MD; Zanette Howe, director of community relations and

events; and Melanie Rich, former director of marketing and university communications. The Baldwin Fund has long been a generous Upstate benefactor as all of its local fundraising supports research at Upstate. Over nearly two decades, the Baldwin Fund has awarded researchers more than \$3 million to further their studies into the cause of breast cancer. In addition to the grants, the Baldwin Fund sponsors two annual endowed lectureships focused on breast cancer developments. The Baldwin family dedicates their research grants to women who have been affected by the disease. Prott was recently recognized with the 2021 Upstate Foundation ROCS Award which recognizes individuals who demonstrate outstanding customer service. In 2018, Prott was also inducted into the SUNYCUAD (Council for Undergraduate Affairs and Development) Hall of Fame for her work as a long serving vendor chair for its annual state-wide conference.

- **SUNY Upstate professor Stephen V. Faraone, PhD named 80th best scientist in the world**

Stephen V. Faraone, PhD, SUNY Distinguished Professor at Upstate Medical University, who is a foremost scholar on attention deficit hyperactivity disorder, has been ranked as the 80th “best scientist in the world,” and 57th best in the United States, according to Research.com. According to Research.com: “the inclusion criteria for scholars to be considered into the ranking are based on their Discipline H-index (D-index), proportion of their contributions made within a given discipline as well as the awards and achievements of a scientist in specific areas. The D-Index is used to rank scholars in descending order combined with the total number of citations.” Faraone's work has been cited by colleagues 195,382 times. Faraone's productivity and influence also has been recognized previously. ExpertScape named him a “world expert” on mental disorders by virtue of his ranking in the top 0.1 percentage of scholars writing about mental disorders in the last decade. They also list him as the top expert in neurodevelopmental disorders, worldwide. Faraone is one the foremost researchers on attention deficit hyperactivity disorder. He is best known for leading an international effort that discovered the first genes for ADHD and for research that helped shape diagnostic criteria for ADHD in adults. He curates evidence about ADHD at [www.ADHDvidence.com](http://www.ADHDvidence.com) and has a strong social media presence with 28,000 followers on Twitter and 16,443 on LinkedIn. Faraone currently serves president of the World Federation of ADHD. His honors include the Paul Hoch Award from the American Psychopathological Association, given to a distinguished and currently active investigator who has produced significant, generative research, and the Ming Tsuang Lifetime Achievement Award from the International Society of Psychiatric Genetics for his significant and sustained contributions to the advancement of the field of psychiatric genetics. He is also a member of the Children and Adults with Attention Deficit/Hyperactivity Disorder Hall of Fame in recognition of outstanding achievement in medicine and education research on attention disorders and is a member of the Norwegian Academy of Arts and Letters. In 2014, Thompson Reuters placed him on their list of the World's Most Influential Scientific Minds for the fields of psychiatry and psychology. Last summer, Faraone was selected as one of five experts to serve on the steering committee for a team that will create guidelines for the diagnosis and treatment of ADHD in adults. Faraone joined Upstate in 2004. He was named SUNY Distinguished Professor in 2013. The faculty rank recognizes the scholarship and research of SUNY's finest and most accomplished faculty.

- **A trio of Upstate winners highlight major ADHD conference**

Upstate Medical University's Rachel Aber, a second-year medical student, and psychiatry resident Kathleen Heslin, MD, were among those presenting research posters at the American Professional Society of ADHD and Related Disorder's (ASPARD) annual conference, held earlier this month in Orlando, Fla. Aber and Heslin were selected as travel award winners by ASPARD, which help offset expenses for their conference attendance. Aber's poster, ADHD and Comorbid Mental Health Outcomes for Children and Adolescents with COVID-19, found that while ADHD poses a greater risk for numerous other comorbid mental health disorders, the Covid-19 infection “has been shown to significantly exacerbate this risk for the youth population.” Heslin, in her first year of residency,



presented a poster on the Association between ADHD and COVID-19 Infection and Clinical Outcomes: A Retrospective Cohort Study from Electronic Medical Records. Among the findings were that the Covid-19 infection rate was significantly higher for ADHD patients, though ADHD patients had no difference in hospitalization or death rates. Heslin, who earned her medical degree from Upstate, has had her research published in the Journal of Attention Disorder; she and Aber both are currently mentored by Upstate Professors Yanli Zhang-James, MD, PhD, and Stephen V. Faraone, PhD. Also winning honors at the ASPARD conference was the poster 'Cardiometabolic Comorbidities in ADHD: A Retrospective Cohort Study from Electronic Medical Records', which was selected as a Tris Research Poster Award. The citation goes to the poster that is considered "to have made an important contribution to the science of Attention Deficit Hyperactivity Disorder." The poster highlighted the increased risk of cardiometabolic disease for patients with ADHD compared to non-ADHD patients. Collaborating on the poster were Upstate faculty Yanli-Zhang James, MD, PhD; Ruth Weinstock, MD, PhD; Stephen V. Faraone, PhD; and Upstate medical student John Paliakkara. The ASPARD conference is a major gathering of leading experts in the field of ADHD, including researchers, clinicians aimed at promoting evidence-based practices to diagnose and manage ADHD and its related disorders.

- **Upstate MD/PhD student awarded American Heart Association fellowship, studying causes of heart disease**

Gargi Mishra, an MD/PhD student at Upstate Medical University has been awarded with an American Heart Association Predoctoral Fellowship to help fund her studies for the next two years. Mishra is a member of Xin Jie Chen, PhD's lab in the Department of Biochemistry and Molecular Biology. Mishra was chosen by the AHA on the strength of her proposal to study the impact of the dysfunction of mitochondria in cells, and how this can contribute to heart disease. While the mitochondria require about 1,500 different proteins to function, they have to import them to fuel the body's organs. Mishra plans on using yeast to mimic the process and try to prevent or reverse protein clogging. She's hoping a better understanding of the basic science behind mitochondrial dysfunction can lead to future drug and therapeutic discoveries. The American Heart Association awards predoctoral fellowships "to enhance the integrated research and clinical training of promising students who are matriculated in pre-doctoral or clinical health professional degree training programs and who intend careers as scientists, physician-scientists or other clinician-scientists, or related careers aimed at improving global cardiovascular, cerebrovascular and brain health."

- **Upstate's Dominic Carone, PhD to serve as President-Elect of American Academy of Clinical Neuropsychology**

Upstate Medical University neuropsychologist Dominic Carone, PhD, clinical associate professor in the Department of Physical Medicine and Rehabilitation, has been elected President-Elect of the American Academy of Clinical Neuropsychology (AACN). Carone will serve as President-Elect (February 2024 through February 2026) before serving as President (February 2026 until February 2028). As president of the AACN, Carone will oversee an organization of more than 2,400 members. Some key issues for the organization are increasing diversity among the profession and funding research that demonstrates the effectiveness and benefit of clinical neuropsychological care, among other issues. The mission of the AACN is to advance the profession of clinical neuropsychology through its advocacy of educational and public policy initiatives. This is not the first time Carone has held leadership positions within his profession. He has served as president of the Central New York Psychological Association and president of the New York State Association of Neuropsychology. Carone is one of four neuropsychologists who comprise Upstate's Neuropsychology Assessment Program. The team provides neuropsychological evaluations for patients who have been diagnosed with numerous conditions, including dementia, traumatic brain injuries and brain tumors among others. Carone joined Upstate in 2005 after serving as a

neuropsychology post-doctoral fellow at University of Buffalo. He also held a one-year neuropsychology intern at University of Oklahoma Health Sciences Center. He earned his master's and doctoral degrees at Nova Southeastern University, and an undergraduate degree from Le Moyne College. His research interests include traumatic brain injury, multiple sclerosis, effort testing, and symptom validity assessments. He is the lead editor on the first book written on symptom validity assessment and malingering in mild traumatic brain injury. He has also published a book a book on validity assessment in rehabilitation psychology, and research articles in peer-reviewed psychological, neuropsychological, neurological, and neuroradiological literature.

- **Three Upstate students, honored for their research, are among SUNY GREAT award winners**

Three Upstate Medical University students are among the 33 State University of New York students selected for the 2023 SUNY Graduate Research Empowering and Accelerating Talent (GREAT) award. Each winner will receive \$5,000 in flexible funding for research expenses, professional development, and stipend supplements. Upstate students receiving the GREAT awards are Nicole Maurici, Biochemistry and Molecular Biology, Akshay G. Patel, Medicine, and Harsimranjit Sekhon, Biochemistry and Molecular Biology.

- Maurici's winning research project is "Elucidating the Mechanism of MBD Protein LLOPS and its Role in Transcriptional Repression."
- Patel is honored for his work on "Rab4A Control of Liver Dysfunction in Models of Systemic Lupus Erythematosus."
- Sekhon's award-winning work study is "Molecular Devices for the Detection and Treatment of HCMV Infection."

In making the announcement, SUNY Chancellor John B. King, Jr. recognized the students for conducting innovative research that tackles some of society's most pressing issues. SUNY GREAT awards, now entering its third year, provide incentives for SUNY graduate students to compete for federal awards sponsored by agencies including the National Science Foundation, National Institutes of Health, and U.S. Department of Energy, among others. The award-winning research provides a better understanding of climate impacts on glaciers to address the climate crisis; investigates ways to manage harmful invasive species to protect native ecosystems; studies the biomechanics of humans to create more human-like performance in robots; works to create more sustainable battery storage options for solar and wind energy; and develops an enhanced understanding of how genetics play a role in the longevity of humans. Other students honored are from Stony Brook University, University of Buffalo, Binghamton University and SUNY College of Environmental Science and Forestry.

- **Mehdi Mollapour, PhD elected president-elect of the Cell Stress Society International**

Upstate Medical University's Mehdi Mollapour, PhD, professor of urology, biochemistry and molecular biology, vice chair for translational research for Urology and director of Upstate Kidney Cancer Biology Program, has been elected president-elect of the Cell Stress Society International. He will begin a two-year term as president in 2025. The society represents researchers investigating stress responses at cellular and organismal level using molecular, cellular biology as well studies of natural populations, clinical and environmental applications. Founded in 1999, the society promotes collaboration among the various fields of stress research, international scientific cooperation, and public awareness. The society currently has almost 500 members. The society publishes papers and review articles in its journal Cell Stress & Chaperones. Mollapour is a leading expert in the chaperone code. He is currently in the midst of a five-year, \$2.2 million NIH study of the chaperone code, which plays an important role in cancer and neurodegenerative diseases. The study is funded by a highly prestigious Maximizing Investigators' Research Award (MIRA or R35) award from the National Institute of General Medical Sciences (NIGMS), which is part of NIH. Mollapour helped organize an international chaperone code meeting, which he reported on in the Journal of Biological Chemistry. His work has been published in dozens of scientific journals,

including Nature Structural & Molecular Biology, Nature Communications, Nature Reviews Urology, Cell Report and others. Over the past decade, his research support has come from numerous organizations, including the National Cancer Institute, Department of Defense, Carol Baldwin Breast Cancer Fund of Central New York, and others.

- **Upstate student receives SUNY's highest academic honor**

Samantha Williams, who will earn her medical degree in May from the Norton College of Medicine, has received SUNY's highest honor for academic excellence and leadership. The Syracuse-born Williams was presented with the 2023 Chancellor's Award for Student Excellence in ceremony on April 24, 2023 in Albany. Williams completed her undergraduate degree at Union College as a part of its Scholars Program. Prior to medical school, she completed a post-baccalaureate at the University at Buffalo. This year, she matched at Northwell at Phelps Hospital in Sleepy Hollow, N.Y. and will pursue a career in family medicine.

- **Graduate Studies student wins SUNY Chancellor's Award**

Alana Belkevich, of Mahopac, N.Y., who will earn her PhD at Upstate Medical University Commencement May 7, 2023 has been honored with the 2023 Chancellor's Award for Student Excellence in recognition of her academic excellence and leadership. She received the award from the chancellor during ceremonies April 24, 2023. While at Upstate, she served in various leadership roles including class president of the College of Graduate Studies. She has been productive academically by co-authoring several papers, teaching as an adjunct professor for Upstate's College of Health Professions, and mentoring many undergraduate and graduate students. She is involved in the local community by volunteering as an emergency medical technician and plans to pursue a career in academia. Belkevich is studying RNA polymerase, an enzyme that copies a DNA sequence into an RNA sequence. Defects in the enzyme cause several different diseases in humans. Her work has been in the lab of Professor Bruce Knutson, PhD. She earned her undergraduate degree from St. Lawrence University in Canton, N.Y., and then ventured to Upstate, where she thrived in her studies.

- **Upstate physical therapist named health care professional of the year**

Upstate Medical University physical therapist Mindy Heath has been named Health Care Professional of the Year. The honors comes from New York State United Teachers. Already armed with an undergraduate degree from SUNY Oswego, Heath enrolled in Upstate's College of Health Professions, earned her doctorate in physical therapy and shortly after joined Upstate's Physical Medicine and Rehabilitation staff. She joined Upstate in 2014. She also volunteers as an EMT for the Minetto Fire Department. Heath's coworkers and supervisors praised her work and her dedication to her patients.

- **Upstate Medical University emergency preparedness specialist receives highest certification**

Upstate Medical University's Brad Marmon, MPH, has earned the highest national certification for emergency management. Marmon received the Certified Emergency Manager (CEM) credential, the highest honor of professional achievement available from the International Association of Emergency Managers (IAEM). Marmon has more than 10 years of experience leading emergency preparedness and life safety programs, including as senior emergency management program specialist at Upstate for more than half of that. In order to complete the CEM, candidates must document a wide variety of training and education to include 100 hours of Disaster/Emergency Management training, plus 100 hours of General Management training within the last 10 years. Among the trainings Marmon completed are FEMA Basic Emergency Management Academy and Hospital Emergency Response Team Training at FEMA's Center for Domestic Preparedness. He also took multiple courses in leadership and influence, and decision making to meet the general management requirement.

- **Hospital CEO Dr. Robert Corona named to the 2023 list of 101 academic medical center CEOs to know**

Upstate University Hospital CEO Robert Corona, DO, MBA, has been named to the 2023 list of 101 academic medical center CEOs to know. The list appears online from Becker’s Hospital Review. According to Becker’s the executives featured on this list are “trailblazers in the healthcare arena. Their leadership results in groundbreaking research discoveries, innovative clinical trials and superior patient experiences.” The list was compiled from nominations. Corona, was named CEO of Upstate University Hospital in January 2019, after serving as interim CEO since March 2018. As CEO, Corona has helped usher in an era of collaboration and innovation with a vision of transforming the hospital on the foundation of four pillars: Quality of Care, The Upstate Experience, Advanced Teams and Technology, and Sustainability. Corona said the pillars are designed to keep the hospital at the forefront of the best care, but also to position the hospital for the future to better fulfill its mission of being a smart, innovative teaching hospital. Corona has appeared on Becker’s lists before. He was named to the list of 100 CEOs in 2020 and was named to the list of 73 hospital CEOs from state’s hardest hit by COVID-19. Becker’s Hospital Review is a monthly publication for the health care industry providing information on business and legal news related to hospitals and health systems.

## INNOVATION

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- **Upstate research leads to patent for saliva concussion test**

A patent for a saliva test used to analyze and predict the occurrence of mild traumatic brain injury and concussion symptoms that was developed through research at Upstate Medical University and Penn State College of Medicine has been awarded to Quadrant Biosciences, SUNY Research Foundation and Penn State College of Medicine. Quadrant is a StartUP NY company based at the Central New York Biotech Accelerator. This patent is a transformative piece of intellectual property that Quadrant is using to develop its Clarifi™ mTBI Saliva Test, expected to be available in late 2023. Quadrant has started discussions about potentially licensing this technology to third-parties. This test uses small non-coding RNAs found in the saliva to help diagnose concussions. The patented research was led by Upstate Professor Frank Middleton, PhD, and Steve Hicks, MD, PhD, now at Penn State College of Medicine, and focused on young adult and pediatric populations, who are most at risk for head injuries. Hicks earned his doctorates and completed his residency at Upstate. This is the second patent awarded in less than one year to Quadrant and its partners. In March 2022, a patent was issued from the USPTO for its development of a saliva-based, epigenetic autism diagnostic aid; this same technology received FDA Breakthrough Device designation in April 2021.

- **Students create group aimed at bridging the gap between medicine and industry**

Several Upstate Medical University students have taken the initiative to help bridge the gap between medicine and industry. The “Upstate Innovation and Entrepreneurship Group” was created by Avishek Sanjel Chhetri, Allen Luo, Shervin Razavi, and Jack Sedaka to help students enhance their knowledge of business-related ventures in medicine. All are second-year medical students, except for Razavi who is an MD/PhD student. “We envision a student-led initiative focused on enhancing the knowledge of business-related ventures in medicine, such as industry consulting, hospital administration, and healthcare startups, through experiential pro-bono consulting and educational seminars,” said Chhetri, one of the group’s founders. The group is looking to connect medical students who want to gain hands-on experience working with companies that contribute to the progression of medicine and science. They also hope to facilitate educational seminars led by individuals with a demonstrated history of success in the biotech sphere. The group is in contact with representatives of the CNY Biotech Accelerator, serving to streamline student engagement with emerging companies of interest. The group’s founders emphasize that anybody at Upstate, whether

a student in any of the colleges, faculty member or attending physician, can be part of this group and is welcome and encouraged to collaborate. The group is hosting an interest meeting at noon, Friday, Sept. 23 in 2507-2508 Setnor Academic Building.

- **Upstate introduces new surgical navigation system for complex endovascular cases**

Upstate Medical University's Heart and Vascular Center recently implemented a cutting-edge GPS-like surgical navigation device for use in complicated cases. The Inter-Operative Position System (IOPS) offers doctors better views and greater control during complex endovascular procedures while reducing the need for X-rays. It was used for the first time last month to easily insert a stent into blood vessel that's normally hard to see and access. The surgery was performed by Michael Costanza, MD, who said the surgery was needed to increase blood flow to the patient's intestines after he suffered an aortic dissection. The blood vessel in question is at a difficult angle to access and it overlaps another vessel so it's hard to see on X-ray, which is what is normally used to guide these types of procedures. With the IOPS, Costanza was able to place the catheter in less than a minute. Using X-ray, that could have taken up to 30 minutes. Senior radiology technician James Glowacki said the IOPS is a mapping system that uses magnetic fields. Once calibrated to the patient on the table, doctors can view the inside of the patient's body in 3D. **Upstate is just the 10th hospital in the country to use the navigation system and the first in the Northeast.** Without this system, X-rays are used during the procedure to help guide the doctor, but those provide only two-dimensional images. Typically, X-rays are used for much of the duration of these surgeries. With the IOPS, doctors can see the catheter and wire travel through the blood vessel in real time 3D. Doctors see everything on a big monitor. According to Centerline Biomedical, which makes the IOPS, complicated endovascular cases have a 15 times higher dose of radiation as compared to a standard one. The IOPS reduces time needed to cannulate a vessel by almost 50 percent and completely eliminates the need for X-rays. Heart and Vascular Center Director Amy Tetrault said the system can lead to improved outcomes for patients because doctors can complete the surgery in less time. She said a three- or four-hour surgery could be shortened an hour using the IOPS. The Heart and Vascular Center used the IOPS twice more in February for a splenic artery aneurysm and for a celiac artery occlusion.

## COLLABORATIONS

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- **Upstate physician works to create national tribal review board to prevent maternal deaths among Native American women**

An Upstate doctor is working to prevent unnecessary maternal deaths among all women, and more specifically among Native American women, who suffer from a higher risk of avoidable death. A recent report by the CDC found that almost all maternal deaths among American Indian and Alaska Native populations in the United States could have been prevented and in the general population, 80% of these deaths were avoidable. Brian Thompson, MD, is an assistant professor of obstetrics and gynecology and public health and preventive medicine and a citizen of the Oneida Nation. He serves on New York state's Maternal Mortality Review Board, which reviews the circumstances around pregnancy-related deaths to identify recommendations to prevent future deaths. He is also working with the National Indian Health Board to create the first national tribal review board to better understand and prevent maternal mortality among Native women. The tribal review board is in the early planning stages and faces challenges getting data from all 50 states, including about a dozen that do not have state review boards. But Thompson said the need is urgent. Overall, the rate of maternal deaths per 100,000 births has increased steadily in the U.S. since at least 2018. For the overall population, there are 24 deaths per 100,000 births and that number climbs to 55.3 for non-Hispanic blacks. Maternal deaths include those that occur during pregnancy, on the day of delivery and up to one year after giving birth. The leading underlying cause of death varies by race and

ethnicity. Among American Indian and Alaska Native people, mental health conditions and hemorrhage accounted for 50 percent of deaths with a known underlying cause. About 64 percent of deaths occurred between seven days to one year after pregnancy. Thompson said numbers are higher in minority and Native populations due to several factors including access to care, poverty, lack of transportation, lower rates of having insurance and lower rates of starting first trimester prenatal care. There are 9.7 million Native people in the United States. and according to the New York State Minority Health Surveillance report, 27.6 percent of Native Americans live below the poverty level in New York. Thompson said that per capita, health care funding for Native people through the Indian Health Service is significantly lower than Medicaid or Medicare enrollees or veterans. Thompson said that the Native population in the Central New York region seen at Upstate has the highest rate of pregnancy and pre-pregnancy diabetes, of pregnancy and pre-pregnancy high blood pressure, of smoking and of pre-term delivery. Upstate helps run a health clinic on the Onondaga Nation and is referral site for all Native people in Central New York. But, Thompson said, funding to that clinic has not increased in over a dozen years. Thompson said serving Native populations is central to Upstate's mission.

- **Upstate, Binghamton's Watson College agree to closer collaborations**

A new agreement between Upstate Medical University and Binghamton University's Thomas J. Watson College of Engineering and Applied Science will strengthen ties between the two schools and encourage closer research collaborations. A memorandum of understanding signed last week by Upstate Vice President for Research David Amberg and Binghamton Vice President for Research Bahgat Sammakia will allow the institutions to jointly pursue sponsored funding opportunities and develop solutions to today's pressing medical problems. Research areas that are currently being explored include neuroscience, brain imaging, digital pathology, cancer research and bone-tissue engineering. Under a pilot research grant program that is part of the agreement, collaborative research could receive seed grants of up to \$20,000 to fund preliminary research in pursuit of external funding. The two institutions have already submitted joint research proposals to the National Science Foundation (NSF) and are exploring proposals to the National Institutes of Health (NIH). Last May, Watson College hosted Satish Krishnamurthy, MD, chair of neurosurgery at Upstate Medical University, for a Watson Distinguished Colloquium seminar as the first of a joint seminar series to be co-hosted by both institutions under this partnership. The agreement also provides Watson faculty greater access to Upstate's core facilities, biosamples, clinical data and access to human subject research. Likewise, Binghamton University's Health Sciences Core facility will be made available to Upstate's researchers. In addition to collaborative research pursuits aimed at extramural funding, the Watson Institute for Systems Excellence (WISE) will provide its expertise to improve operational efficiencies and performance at Upstate hospitals. The Watson College Continuing Professional Education Program also will offer Lean Six Sigma (LSS) training for Upstate Medical's hospital staff. The MOU is slated to last for five years, with renewals possible beyond 2027.

- **Educational exchange program in Kenya restarts after Covid interruption**

After a brief hiatus due to COVID-19, Upstate Medical University has revived its bidirectional educational exchange program with Maseno University School of Medicine in Kisumu, Kenya. In mid-May, Andrea Shaw, MD, assistant professor of internal medicine & pediatrics, returned to Kenya with three residents and one medical student for a medical service and educational experience in partnership with Maseno University School of Medicine at the Obama Children's Hospital in Kisumu, Kenya. The Upstate team had been engaged virtually once a month for the past two years through a virtual case conference series between the two universities. Clinical cases presented by Kenyan medical students and Upstate pediatric residents are joined with the perspective of Upstate pediatric specialty providers and Maseno's pediatric core faculty. In Kenya, the Upstate team engages in bedside clinical teaching, case-based learning as well as didactic

lectures that fit into Maseno’s curriculum. The Upstate—Maseno collaboration was born out of Upstate’s Institute for Global Health and Translational Science, where former Upstate researchers committed to a great depth and breadth of work in a region including Mark Polhemus, MD, Timothy Endy, MD, and Rosemary Rochford, PhD. When Shaw joined the faculty at Upstate in late 2016, she was committed to ongoing work in clinical service and educational collaboration in East Africa, a region she had been involved with in varying capacities over the prior decade. In 2008, amidst her years of medical training, she spent a year in Tanzania working with Upstate’s current Chief of Infectious Diseases Elizabeth Asiago-Reddy, MD. After that, she worked in South Sudan affiliated with Juba Teaching Hospital. The first Upstate group of learners joined Shaw in 2018 and the program continued with a diverse array of learners from Upstate including public health and medical students, pediatric & emergency medicine residents, as well as faculty across disciplines until Covid-19 interrupted and forced Upstate staff and students to evacuate. Upstate has demonstrated an equitable commitment to this bidirectional partnership by sponsoring Kenyan faculty and students to join observership time at Upstate in 2018 and 2019. This will restart this fall when two Kenyan final-year medical students and one junior faculty member come to Upstate for observership. Future plans involve the expansion of an international health fellowship that will engage Upstate faculty in Kenya consistently throughout the entire calendar year.

- **The first class of Syracuse City School District students enrolled in Upstate’s Jump into Health Care program**

The monthlong program introduced the students to various health care careers and provided opportunities to strengthen their research and presentation skills. The students were supported throughout the program by College of Health Professions’ Dean Katherine Beissner and students from the Norton College of Medicine.

- **Upstate Golisano Children’s Hospital joins premier network for autism**

Upstate Golisano Children’s Hospital will confer with other top centers on best practices and care for children with autism. Upstate Golisano Children’s Hospital has been invited to become a member of the Autism Care Network, the first and only network of its kind focused on better autism care, aimed to improve health and quality of life for children with autism and their families. Upstate joins 24 other hospitals in the network, including Children’s Hospital of Philadelphia (CHOP), University of Rochester Medical Center - Golisano Children’s Hospital, and Cincinnati Children’s Hospital Medical Center in the network. Henry Roane, PhD, division chief of the Center for Development, Behavior and Genetics at Upstate and the executive director of the Golisano Center for Special Needs, said inclusion in the network will benefit clinicians, patients and their families in several ways. Launched in April 2021, the network is supported by Autism Speaks, AIR-P, the J. Donald Lee and Laurelle Lee Family Foundation and PCORnet. Roane said the network is also a way for centers to give feedback to Autism Speaks about issues families deal with, and in turn, these issues can become research or clinical initiatives. Members of the care network meet via monthly webinars led by a different center each time, where things like best practices and changes in the field will be discussed. Inclusion in the network includes a small amount of grant money to support the salary of a site coordinator.

- **First class of students in the Accelerated Scholars Program begins study at Upstate**

Upstate Medical University’s first class to enter the Norton College of Medicine through its Accelerated Scholars Program matriculated this fall and makes up 10 percent of this year’s class. And the numbers only rise from there, as the program’s popularity grows. Each year, 62,000 applicants compete for 23,000 seats in medical schools across the country. Upstate offers high school seniors, college freshmen and sophomores certain of a future in medicine an expedited track into one of its 175 slots through its accelerated program. Launched in 2018, the program is designed for students who wish to apply to both an undergraduate institution and medical school simultaneously. Doing so saves time, stress, and money by eliminating the need to apply to

multiple medical schools and take the medical college admission test (MCAT). The program also allows undergraduates to explore a diverse undergraduate course load without worrying about focusing on pre-med requirements, and it builds community and connection among participants through summer programming while they are undergraduates. Sixteen students have matriculated for the 2022-2023 academic year, and that number grows to 21 who have been accepted for Fall of 2023 and at least 41 for Fall of 2025. High school seniors can enter the program through Adelphi University, Albany College of Pharmacy and Health Sciences (ACPHS), Hampton University, Purchase College, Rochester Institute of Technology, SUNY Polytechnic Institute, SUNY College of Environmental Science and Forestry (ESF), Spelman College, Syracuse University, University at Albany and Yeshiva University. College freshmen can enter from Binghamton University, Colgate University and Hamilton College, and sophomores can enter through Bard College at Simon's Rock. Members of the inaugural class are 75 percent women. Four students come from Purchase College, two each come from RIT, UAlbany, Adelphi and Hamilton, and one each from Bard Simon's Rock, ESF, former partner Hobart William-Smith. A key component of the program is that it allows students to major in subjects not typically associated with a premedical track in order to create a more diversely trained workforce of physicians. High school students apply for the program when they apply to one of the partner schools. Once they are accepted as an undergraduate, the partner school then determines if they will be recommended for an interview for a medical school slot. The path is similar for college freshmen and sophomores. Once accepted, programming begins in the summer, which can be in person or virtual, with both synchronous and asynchronous material. Students earn credits and also take practice MCAT exams for the experience, as well as get to know each other, the school, and their professors—all before they officially start medical school. For more information on the program go to

<https://www.upstate.edu/com/admissions/options/uas/index.php>

- **Upstate to provide trauma care for international sporting event in Lake Placid Jan. 12 to 22, 2022**  
Upstate University Hospital is one of two hospitals that will provide trauma care to athletes participating in the World University Games in Lake Placid in January. The World University Games brings together 2,500 athletes and coaches from 600 universities in 50 countries from Jan. 12 to 22. Athletes will compete in 12 different winter sports at venues across the North Country. As the only two Level I trauma centers in the region, Upstate and Albany Medical Center will be on call to handle any serious injuries. Christopher Tanski, MD, MEd, assistant professor of emergency medicine, is overseeing Upstate's role in the games. He said he meets with games officials once a month to talk things through, but for the most part, it is just business as usual for Upstate. In addition, Tanski has been tagged as one of two medical directors for the EMS teams that will be supporting the games. Due to the scale of the event and the number of ambulances needed at venues and athlete villages, many EMS teams are being brought in from other states, so as not to over burden the regional ambulance companies. As such, the crews may need guidance or advice in terms of protocols and resources. Tanski will be on call every other day during the games to help advise the crews. He will split the duties with a colleague at Albany Medical.
- **Upstate, Crunch partner on opioid abuse education campaign**  
Upstate Medical University and the Syracuse Crunch are teaming up to fight opioid use and overdose through a public education campaign funded by a grant from Assemblymember Pamela J. Hunter. Also participating in the campaign is Crouse Health. Crunch and hospital officials made the announcement Jan. 5. Crunch owner Howard Dolgon said the Crunch will develop an initiative to use its platform and players to bring messages to general audiences as well as connect with athletic trainers and student-athletes on issues related to opioid use. Upstate University Hospital CEO Robert Corona, DO, MBA applauded the participation of the Crunch in this initiative; "Athletes are heroes to a lot of kids," he said. "A lot of the kids that end up taking pain medications are athletes. So, their heroes are people like the Crunch athletes, so they'll listen to them." Opioid



abuse may result from the misuse of prescribed drugs. Prescription opioids are often prescribed to treat moderate to severe pain following surgery or injury.

- **Upstate, SUNY College of Optometry join forces to address eye care workforce needs and access in Upstate New York**

Upstate Medical University and the SUNY College of Optometry will join forces to improve access to health care through growing the number of eye doctors in Central and Western New York. The partnership between the two SUNY campuses leverages the strengths of both institutions through creating an Optometry campus extension program offering a doctorate of optometry degree, collaborative vision research, access to eye care, and economic opportunities in the region. This partnership addresses the critical need for more eye doctors in the region and provides a more affordable option for aspiring eye care professionals, especially those who live in New York State. The program will parallel the doctor of optometry program currently offered by SUNY College of Optometry. The first class is anticipated to start in the fall of 2025 with an estimated 30 students pending successful completion of all state and accrediting body approvals.

- **Upstate continues collaboration with Kingston, Ontario, and Queens University at cross-border conference March 29, 2023**

Upstate Medical University will host business and industry leaders, along with government and economic development officials from Syracuse and Kingston, Ontario, March 29 to hear about key collaborative opportunities between the two cities. The conference will take place from 8:30 to 5 p.m. at the second annual Kingston-Syracuse Pathway Cross Border Conference on Health Innovation to be held at the Crown Plaza Syracuse, 701 E. Genesee St. Sessions will include discussions on Industry and University Collaborations; Cancer Diagnosis; MedTech Innovation; Regenerative Medicine and Biomanufacturing; Workforce Development in Health Care, among others. Additionally, five Innovation teams have been selected from applications received to participate in the 2nd Annual Kingston Syracuse Pathway (KSP) Pitch Competition. The cities of Kingston and Syracuse, about two hours apart, have many similarities including their size (both slightly under 150,000 population), economic development efforts and medical universities tied to their teaching hospitals. The cities of Kingston and Syracuse are naturally connected—in proximity and through shared economic advantages and interests. Kingston, Syracuse, and their surrounding regions are both home to world-class academic and research institutions; innovation ecosystems in key market sectors, including health innovation, biotech, and advanced manufacturing; and enjoy close access to major economic hubs including Toronto, Montreal, and New York City. The Kingston-Syracuse Pathway results from long-standing collaboration between business, government, and academic leaders from both sides of the border. By facilitating cross-border collaboration on cutting-edge research and development; unlocking new global markets for entrepreneurs, startups, ; and improving connectivity between governments, officials believe the Kingston-Syracuse Pathway will maximize the competitive advantages of Eastern Ontario and Northern and Central New York State. The overall vision of the Kingston-Syracuse Pathway is to enhance connectivity and position the regions as collaborative leading global innovation ecosystems. The first cross-border conference held in Kingston, Ontario last June addressed, among others, issues related to the pandemic, such as vaccines, global health, infectious diseases, health care systems in the COVID-19 aftermath. In addition to Upstate, the conference is sponsored by Centerstate CEO, Kingston, Ontario, Canada; Kingston Health Sciences Centre; Queens University; Fulton Savings Bank; SUNY Oswego; MedTech and the CNYBAC.

- **Upstate Foundation grants will improve ambulance care for region's sickest patients**

Upstate Medical University has awarded \$35,000 to three area ambulance companies to help improve the transportation of critically ill patients. The funding for the grants was provided by the Upstate Foundation. Upstate receives roughly 8,000 transfers from surrounding hospitals a year, but many of the community ambulance services lack the specialized equipment and trained staff

necessary for critical care during that transport. Guilfoyle Ambulance in Watertown and Menter Ambulance in Oswego both received a \$12,500 Critical Care Transport Development grant. Gouverneur Rescue Squad in Gouverneur received \$10,000 Critical Care Transport Enhancement. Sandbrook said Upstate received a great response from 10 very qualified applicants. Grant money will be used by agencies to purchase specialized equipment and train personnel. Transport ventilators can cost upwards of \$15,000 while IV infusion pumps cost \$2,000 each.

- **Upstate professor is one of 13 faculty nationwide to pen report on how academic public health institutions address gun violence prevention.**

An Upstate University Medical School professor helped draft a report on gun violence and public health as part of a national taskforce. Margaret Formica, PhD, an associate professor of public health and preventive medicine, joined 12 faculty from schools of public health around the country—including Harvard, Yale, and Johns Hopkins—to create a framework intended to guide academic public health institutions as they engage in the issue of firearm violence prevention. The report: Gun Violence Prevention: An Academic Public Health Framework was published last month by the Association of Schools and Programs of Public Health. The report determined that there are a number of barriers to effectively implementing strategies that can prevent firearm injuries and fatalities across the country. These include a deep national divide on public policy, the historical lack of funding to support gun violence research and the challenges practitioners face with framing gun violence as a public health or health equity issue rather than solely a criminal justice program. A disproportionate impact of firearm violence falls on Black, Indigenous and People of Color communities. Formica said dealing with gun violence in public health programs and medical school programs is an important step toward reducing it. Her biggest takeaway is that institutions need to prioritize the issue but that the lack of research historically hinders that effort. If practitioners are more aware of the issues, they can educate their patients and feel more comfortable addressing the issue with patients. Formica’s research in the last several years has focused on firearm violence, injury epidemiology, and violence prevention. She has collaboratively worked with a broad network of academic and community leaders and organizations to promote firearm violence research and prevention efforts. This work has raised awareness of the public health impact of firearm violence, disparities in firearm violence, advocated for prioritization of resources to address the issue, and provided tools to advance research and prevention efforts.

- **Upstate’s Covid Transitions Clinic has connected with more than 1,000 patients since opening in April 2020**

Upstate University Hospital continues to provide ongoing services and support for COVID-19 positive patients as they recover at home. The goal of the clinic, launched in April 2020 as the COVID Transitions Clinic and now run under the hospital’s Connect Care Clinic, is to assist recovery at home for patients who do not need to be hospitalized. Diane Nanno, MS, CNS, RN, director of Transitional Care, said Upstate began offering the service to offer comfort and reassurance to patients recovering at home at a time when little was known about the virus and in anticipation of potential surges and concerns about having enough beds. Now more than two years later, Nanno estimates that Upstate has reached more than 1,000 patients with the initiative, which includes COVID comfort kits, access to telehealth visits with a provider and an assessment of the patient’s needs at home. Upstate also offers a 24-hour triage line for all community members. The COVID program focuses on patients seen in the emergency room, patients discharged from the hospital, and those in need of kits who are seen in Upstate clinics. Nanno and her team created the comfort kits, which she described as a “virtual hug” to let patients know Upstate is thinking of their needs as they recover at home. The kits include a surgical mask, a thermometer, cough drops, Tylenol, and a finger oximeter, all contained in a canvas reusable bag. The finger oximeter, which measures oxygen levels, is a key assessment tool for patients to monitor their condition. Patients are given the kits upon discharge, but Nanno and her team also hand-delivered hundreds of them to

people's homes. The COVID Transitions clinic closed in November of 2021 and now is housed under Connect Care, launched last fall as a dedicated clinic to help patients transition from hospital care to outpatient setting in a safe, efficient, and timely manner. Tiffany Bell, director of Ambulatory Services who runs Connect Care, said the transitional care team supplies the kits and that Connect Care continues to contact all the COVID hospital discharges to make sure they are progressing well and offers them an appointment with a provider if they need that support, either in person or via telemedicine.

- **Upstate Pharmacy's Medications for Hope program to 19 counties**

Starting Sept. 12, 2022 Upstate Medical University's Medications for Hope, formerly called Dispensary of Hope, will be open to all 19 counties served by Upstate University Hospital. The program is a national non-profit drug distributor that takes billions of doses of excess drugs that would have otherwise been destroyed and disseminates them to nonprofit pharmacies and clinics for patients who are uninsured and indigent. Upstate's Outpatient Pharmacy at Community Hospital, located at 5000 West Seneca Turnpike, became a dispensary location in July. When the program launched, it was limited to residents in Onondaga County. Though there is only one dispensary location, the pharmacy can ship medicine free of cost to any qualified patients living anywhere within the 19 counties that Upstate University Hospital's services. Available medications include those to treat high blood pressure, high cholesterol, stomach ulcers, mental health, diabetes and others. Most notably this program includes insulin, which constantly makes headlines for its high cost, up to \$300 per vial. Eligibility to participate in the Upstate's medication access program is based on the annual published Federal Poverty rates. Applicants must be at or below 300 percent of Federal Poverty Guideline and have no prescription insurance. Balotin said this threshold for someone who is single would be an income level of \$40,770 while a family of four could have an income level of \$83,250.

- **Upstate surgeon takes medical mission to help war victims in Ukraine**

Upstate head and neck surgeon Sherard 'Scott' Tatum, MD, traveled to Ukraine in September 2022 to perform facial surgeries on civilians and soldiers injured in the war with Russia. He was among a team of eight surgeons, two nurses, one surgical technician, and four support staff who made the trip with Face to Face (F2F), the humanitarian arm of the American Academy of Facial Plastic and Reconstructive Surgery. Tatum has been a member of the AAFPRS for 37 years. The team performed 34 complex surgeries at the Ivano-Frankivsk Regional Clinical Hospital during the week-long stay, working from 7 a.m. until 9 or 10 p.m. each day. Surgical interventions ranged from nasal reconstruction to the transplantation of a leg bone for reconstruction of a patient's lower jaw. Tatum, former chair of the Otolaryngology Department at Upstate, performed six surgeries, including palate defects and eye socket repairs. The rest were adults with penetrating trauma to the face or head either from guns or shrapnel. They were a mix of civilian and military casualties. He said the leg bone facial reconstruction was the most complex case, and the surgery last 14 hours. His patients ranged in age from 11 to 75. Tatum said the team worked in western Ukraine, relatively far from the front but that the area was hit by rockets in the early days of the war and then soon after the team left. The trip was Tatum's first mission to Ukraine, third to a war zone, and 15th overall as a member of F2F. F2F is connected with two Ukrainian organizations, Razom for Ukraine and INgenious. The group also had help from Healing the Children, Northeast and Materialise, which printed expensive titanium implants for patients for free, and several other entities providing support and supplies. Several of the team members are Ukrainian-American. Tatum said the group is planning a return trip for the spring and is working on recruitment and expanding visit sites.

- Third Upstate doctor travels to Ukraine to provide medical aid**

Upstate Radiology Professor David Lubin, MD, got a great deal on a portable sonogram machine on Black Friday. He loaded the machine, some trauma first aid supplies and warm clothing into the biggest rolling duffel bag he could get, took two flights, a bus and then a train to deliver it all safely to medics in Ukraine last month. By bringing the supplies to Lviv himself, he could not only guarantee their safe arrival, but could also train the volunteer medics on how to use the sonogram machine in a trauma setting. Lubin said he has long wanted to help the Ukrainian people in the war with Russia and has been inspired by what others in the local and Upstate community have done, especially Dr. Gennady Bratslavsky, a Ukraine native and Upstate physician who has raised money and delivered medical supplies to the war-torn country. In addition to Lubin and Bratslavsky, Upstate physician Sherard Tatum, MD, traveled to Ukraine last September with the group Face to Face to perform facial surgeries on civilians and soldiers injured in the war with Russia.
- With books and inspirational messages, Upstate medical students visit elementary school.**

Medical students from Upstate Medical University's chapter of the Student National Medical Association (SNMA) distributed dozens of books to students in kindergarten through third grade at Van Duyn Elementary School in Syracuse as part of their outreach efforts to instill in students that anything is possible for anyone. SNMA is a national organization aimed at supporting future students from underrepresented populations to enter medical school. The organization at Upstate is supported by Nakeia Chambers, MEd, Upstate's director of multicultural affairs and student inclusion. The children's books, which were donated during an early semester book drive and distributed Nov. 30, 2022 reflected a rainbow of multicultural inspirational stories that kids could read and likely see their reflection in the pages. In addition to reading to the classes, the med students also spoke about the work and education it takes to succeed in the medical field and in science. The medical students expressed emotion themselves when the principal asked each to highlight the educational journey and hard work that has brought them to medical school.

## CLINICAL TRIALS & RESEARCH

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- Upstate leads the way in creating diverse clinical trials.**

In April 2022, the FDA laid out new requirements for diversity recruitment plans in clinical trials for any new drugs or devices requiring the agency's approval. But one Upstate doctor and a newly appointed Community Research Liaison had already made it their mission to reach out into the Syracuse community to engage patients of different ages, ethnic backgrounds, and genders to encourage them to participate in clinical trials. And they are doing it by building relationships, listening to input, and establishing trust. With a \$372,000 grant from the National Institute of Aging, Sharon Brangman, MD, chair of geriatrics at Upstate and the director of the Upstate Center for Excellence for Alzheimer's Disease, and Kathy Royal, MA, Upstate's new community research liaison, are working to improve diversity of all kinds in research across the country on aging, cognitive loss, Alzheimer's disease, and dementia. Royal came to Upstate in July 2021 with deep community connections already in place. A certified life coach, with master's degree in management, Royal brings with her many years of experience in the human services industry, including work as a life coach for the Women's Opportunity Center, as a youth educator and advocate for the Salvation Army, and an HIV advocate for the Center for Community Alternatives. The initiative has already yielded success. Thanks to Royal's efforts, a recent study at Cornell University received 35 referrals, all of whom were African American. Thirteen were eligible and participated. Before Royal got involved, the project had no African American representation for the first six months. Royal is currently recruiting for a local diabetes study and has helped recruit for

studies at Stanford, Emory and Northwestern universities. Historically, medical research has been done by white men and only included young, healthy white men which doesn't accurately represent the geriatric or minority populations she is working to serve. For example, Brangman said there is not enough diversity for trials for Alzheimer's drugs. She points to a recent drug that got approved to remove amyloid plaques in the brain and the international trial had only 19 African Americans, and a small group of Asians and Latinos. As part of the grant, Brangman and Royal participate in a Community Research Recruitment Accelerator on Aging (CRRRA-Aging). These meetings of local people including institutional researchers, community organizers, caregivers, and older adults from the community at-large started in October 2021. No longer is it appropriate for researchers to pop into a community, get what they need and get out. Instead, Brangman and Royal are taking the "coffee and a bench" approach of sitting down, listening to concerns, understanding obstacles, answering questions, and involving the community in what topics are studied. It all boils down to building trust especially in communities of color, which Royal said takes time after decades and even centuries of mistrust due to neglect and mistreatment by the medical community.

- **Dr Stewart Loh awarded \$1.5 million federal grant for project combining protein and DNA engineering.**

Upstate Medical University professor Stewart Loh, PhD has been awarded more than \$1.5 million from the National Institute of General Medical Sciences to combine two different fields of biomedical engineering in a unique way. Loh's lab has been engineering proteins for 20 years, turning them into molecular switches that can be used to detect diseases and kill infected or diseased cells. Now, he plans to bring his work with proteins together with DNA engineering. One practical application of this work is helping transplant patients detect, or even avoid outright a cytomegalovirus (CMV) infection. CMV is a virus that infects over half of all US adults by the age of 40. While CMV remains in a person's body for life, for most their healthy immune system keeps the virus from causing illness. In transplant patients, however, CMV is the leading cause of death and illness as their immune systems aren't able to fight the virus. Loh thinks protein and DNA bioswitches can help not only detect CMV in patients to help manage infection but potentially could eliminate CMV before the transplant. The National Institute of General Medical Sciences (NIGMS) supports basic research that increases understanding of biological processes and lays the foundation for advances in disease diagnosis, treatment, and prevention.

- **Upstate is awarded \$50,000 grant from St. Baldrick's Foundation to support clinical trials for children with cancer**

Melanie Comito, MD, division chief of Pediatric Hematology/Oncology and the Paige Yeomans Arnold Endowed Professor at Upstate Golisano Children's Hospital, has been awarded a \$50,000 infrastructure grant by the St. Baldrick's Foundation. These one-year grants provide Upstate the staffing to open, coordinate, and treat more children on clinical trials, making it possible for more children to access these trials close to home. Upstate was one of 20 institutions to receive an infrastructure grant, totaling more than \$1.2 million. The award supports the work at the Dr William J. Waters Center for Children's Cancer and Blood Disorders at Upstate Golisano Children's Hospital, which provides oncology care to children, adolescents, and young adults. Upstate currently has 55 open clinical trials available for pediatric cancer patients. St. Baldrick's is a volunteer-driven charity committed to funding the most promising research to find cures for childhood cancers. St. Baldrick's coordinates its signature head-shaving events worldwide where participants collect pledges to shave their heads in solidarity with kids with cancer, raising money to fund research.

- Upstate MD/PhD student awarded 2-year NIH grant for lupus research.**

Systemic Lupus Erythematosus, known as SLE or lupus, is a disease with an array of symptoms from rashes to fatigue and pain to organ damage, explained Akshay Patel, an MD/PhD student in the lab of Upstate’s Andras Perl, MD, PhD. It affects women far more than it does men, often in their childbearing years, he said. Singer and actress Selena Gomez was diagnosed a decade ago and increased public awareness of lupus when its effects required her to get a kidney transplant in 2017. Scientists may be getting closer to understanding lupus thanks to a grant Patel was awarded by the National Institutes of Health. Earlier in 2022, Patel was notified that the National Institute of Diabetes and Digestive and Kidney Diseases had awarded him a Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions Without NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30). The two-year funding will allow him to continue his work with model mice, discerning the role played by a specific enzyme that is associated with the onset and worsening of lupus. Patel is focused on the effect lupus has on the liver, what he called “the most metabolically active organ in the body.” In particular, he is looking at an enzyme called Rab4A, that works within cells to “turnover mitochondria that don’t work and adjust proteins on the surface of a cell,” he said.
- Upstate researcher awarded grant to study retinal diseases.**

William Spencer, PhD, assistant professor at Upstate Medical University, was awarded a \$250,000 grant from the E. Matilda Ziegler Foundation for the Blind to further his research into the role ectosomes play in retinal disease and possible treatments. Spencer is building off of previous research he’s conducted on Progressive Rod-Cone Degeneration (PRCD). The process of replacing these membranes can sometimes be affected by inherited genetic mutations, causing them to be released outside the cell and accumulate like trash in the retina. A better understanding of this process could lead to treatments for diseases like retinitis pigmentosa, cone-rod dystrophy and Leber Congenital Amaurosis; all of which currently cause complete, irreversible, and incurable blindness. The EMZ Foundation aims to support outstanding investigators at the early stages of their careers who show innovation and promise in vision research. Spencer is one of the newest researchers to join SUNY Upstate’s Center for Vision Research. You can read more about his work or contact him about joining his lab here.
- Working to help transplant patients, Upstate researcher awarded \$3.2 million grant to help create treatment to fight HCMV infection.**

Gary Chan, PhD has been awarded a five-year \$3.2 million grant National Institute of Allergies and Infectious Diseases to find a treatment for one of the most dangerous infections for transplant recipients. Chan, an associate professor of microbiology and immunology at SUNY Upstate Medical University, said his lab is focused on studying host-pathogen interactions involving human cytomegalovirus (HCMV) and understanding how HCMV-mediated alterations to cellular function lead to human disease. HCMV is endemic and infects the majority of people in the world; up to 80 percent of the population by some reports. Typically, a healthy person isn’t aware of the infection, but HCMV can cause severe and sometimes fatal disease in immunocompromised individuals and newborns. This can be especially dangerous for people needing an organ transplant. HCMV can significantly raise the chance of organ rejection, making its treatment crucial for those needing a life-saving transplant. Current anti-viral treatments delay replication but don’t eliminate the infected cells. Chan is proposing to target heat shock factor (HSF) 1, a protein that is stimulated by HCMV, which could both inhibit the replication of HCMV and eliminate infected cells. Chan thinks this approach could prove to be the key to a safer and more effective treatment. “Since HSF1 is a cellular protein needed by the virus to replicate, resistance against HSF1 inhibitors is unlikely. Also, because HSF1 is only activated in stressed cells such as virally infected cells, the side effects of HSF1 inhibition are likely to be mild.”

- **Upstate neuroscientists awarded \$3.6 million NIH grant to study role of new brain protein involved in social memory.**

Two Upstate Medical University neuroscientists have received a multi-million, multi-year grant from the National Institute of Mental Health to continue their work on the role of a new brain protein involved in social memory. Julio Licinio, MD, PhD, MBA, and Ma-Li Wong, MD, PhD, both SUNY Distinguished Professors of Psychiatry and Behavioral Sciences and Neuroscience and Physiology, will continue researching how a plant gene functions in the mammalian brain with a \$3.6 million five-year grant from NIH. The pair had the paper “The epigenetic reader PHF21B modulates murine social memory and synaptic plasticity–related genes,” published in JCI Insight (<https://insight.jci.org/articles/view/158081>) last month. In a previous paper published in Molecular Psychiatry, Licinio and Wong were the first to discover that a plant gene that guides plant root growth (PHF21B) is actually expressed in the mammalian brain and is regulated by stress. This new paper, published July 22, shows that this gene and the protein it encodes regulates social behavior, synaptic proteins, and long-term potentiation (LTP). Licinio said that LTP is a process involving persistent strengthening of synapses that leads to a long-lasting increase in signal transmission between neurons. It is an essential process in the context of synaptic plasticity. LTP recording is widely recognized as a cellular model for the study of memory. Licino said they were initially studying depression and had some initial clues from their studies that this plant gene could be involved in the risk to have depression. This discovery came in 2016 and was the first paper to show this connection. After that, a team of German researchers took Licino and Wong’s work a step further and showed that this same gene guides the development of neurons in the brain’s cortex. The researchers knocked down the gene and saw a disruption of that migration during development. Licinio and Wong’s most recent paper builds on that first finding. They now discovered that knocking down the PHF21B gene impacts social memory. In their work, mammals deficient in the gene treated other animals like new each time they were introduced. The NIH grant will allow the pair and their team of researchers to continue this work. The multi-year grant will give a significant boost to the research as well as put Upstate on the front lines of this cutting-edge research field. The team of researchers on the recently published paper includes the following participants from Upstate: Eunice W. M. Chin, PhD; Qi Ma, PhD; Hongyu Ruan, PhD; Camille Chin, PhD candidate-NEUP; Aditya Somasundaram (MS3); Chunling Zhang, MS; Chunyu Liu, PhD, and Wei-Dong Yao, PhD. In addition, national (Rutgers New Jersey Medical School and Medical College of Georgia) and international collaborators (Flinders University, South Australian Medical Research Institute, and the University of Adelaide) also contributed to the work.

- **Upstate researchers identify barriers to medical marijuana usage in new study.**

Karna Sura, MD, and a team of researchers from Upstate Medical University recently published a study looking at cancer patients’ experience with medical marijuana and found that almost half the patients who qualified for it never obtained any. The study, “Experience with Medical Marijuana for Cancer Patients in the Palliative Setting,” is published in in the June 2022 edition of in The Cureus Journal of Medical Science and can be found here (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9337788/>). The goal of the study was to better understand if patients who qualified were using the drugs and what benefits or barriers they experienced. Because marijuana is still illegal on a federal level, very little research about it exists. The research team, which includes Leslie Kohman, MD, Danning Huang, PhD, and Silviu Pasnicu, MD, MS, did a retrospective analysis of patients who were enrolled in the New York state medical marijuana registry through the ambulatory palliative care department at the Cancer Center. The study looked at 184 patients who received care from June 2017 to 2020. Fifty-one percent received at least one prescription from a New York licensed marijuana dispensary while 40 percent who were certified never obtained any medical marijuana. Though providers enroll the patients in the program, patients have to complete another form online to get their card, and then go to speak to a dispensary pharmacist for information on how to administer the drug. Often the patients are

older or not in good health, which can prevent them from following through. If patients don't have a computer to sign up, they can submit paper forms, but Sura said those steps also serve as barriers. Additional barriers are hesitancy, lack of information, concerns about the stigma attached to marijuana and a fear of getting addicted. Cost is another big one. Medical marijuana is not covered by insurance and must be paid for with cash due to federal regulations. Patients in the study spent an average of \$60 per month, but if they had taken the marijuana as directed, they would have spent \$300 per month. For the 40 percent of patients in the study who did not use any medical marijuana, reasons included death (22 percent), used own supply (15 percent), cost (15 percent), registration issue (14 percent), dispensary issue such as dispensary couldn't verify the medical marijuana card (3 percent). Patients who did take the cannabis had positive outcomes. For patients who took at least one dose, 48 percent experienced an improvement in pain, 45 percent used fewer opioids, and 85 percent had an improvement in at least one symptom. Adverse side effects were low at just under 4 percent. The authors concluded that medical marijuana has an important role in the palliation of symptoms in advanced cancers with few adverse effects but that there are still many barriers to effective use. Since marijuana remains a Schedule I drug in the United States, federally supported research or research in federally-funded institutions is prohibited. Sura hopes that the state or federal government will soon allow funding for research, such as randomized studies, to further clarify efficient treatments.

- **Upstate researcher makes discovery in the Fragile X syndrome, receives funding to research genomic defects.**

A new discovery made at Upstate Medical University about the DNA of patients with Fragile X syndrome has been awarded funding from the National Institute of Mental Health (NIMH) for further study. Researcher Wenyi Feng, PhD, an associate professor of biochemistry and molecular biology, will continue her research on understanding the genome maintenance function of the fragile X protein with a \$488,250 grant from the NIMH. Feng describes her lab's discovery of a never-reported aspect of the DNA of Fragile X syndrome (FXS) patients as an unexpected result. Her lab is interested in DNA replication, and was working to map the breaks in the DNA of people suffering from FXS. FXS is a genetic disorder that occurs when mutations in the FMR1 gene cause the absence or loss of function of FMRP, a protein needed for brain development. Feng applied the same stressors to both control DNA and the DNA of a patient with FXS. "It was one of those serendipitous events—we were anticipating that this particular patient and control would share the same kind of breaks elsewhere except for the FMR1 locus on the X chromosome; everywhere else we expected to be equal. We found completely the opposite," Feng said. Feng explains what makes this discovery novel is that they've uncovered an additional function of FMRP, besides protein translation. "What we found was that FMRP regulates not only protein translation, but also gene transcription, a step prior to translation—if you compromise transcriptional regulation by FMRP you jeopardize the genome for accumulating abnormal structures called R-loops and causing breaks." Feng suggests the reason she and her team were able to uncover this new function. "I think because people weren't looking for it; they were focusing on the mutation at the FMR1 locus on the X chromosome, which also causes fragility, but only on the X chromosome. The other aspect is that we used a cutting-edge technique to map these breaks, which has a high resolution that the traditional techniques didn't have." These findings were discovered in blood samples; the next step in Feng's research is to see if there are similar results found in DNA from a patient's brain. They also want to take this finding a step further to try and figure out why these breaks in the DNA appear all over the genome. While the discovery has the potential to assist in treatment of FXS in the future—a syndrome that's hard to treat and has no cure—Feng is taking this research one step at a time. Feng is an associate professor of biochemistry and molecular biology at Upstate Medical University. You can read more about the grant at:

<https://reporter.nih.gov/search/KA2vxw7MJkSRPWOCNWb01A/project-details/10511129>.



- **\$2M federal grant to fund study of microbiome.**

Joel Wilmore, PhD, assistant professor in the department of Microbiology and Immunology, was awarded more than \$2 million from the National Institute of General Medical Sciences to study the microbiome, and how systemic antibody responses are induced in response to commensal bacteria. The microbiome is composed of complex communities of bacteria that dynamically interact with each other and with their host. Secretion of IgA antibodies helps maintain intestinal homeostasis and promotes healthy microbial communities that are associated with positive health outcomes in humans. The goal of Wilmore's study is to define the bacterial properties and gene-level mechanisms that promote IgA production throughout the body. If researchers can understand what triggers the immune response, it could potentially lead to the creation of probiotics, or more effective vaccines for a wide variety of diseases. The National Institute of General Medical Sciences (NIGMS) supports basic research that increases understanding of biological processes and lays the foundation for advances in disease diagnosis, treatment, and prevention.

- **Upstate researchers advance experimental Dengue Human Infection Model to safely test vaccines and drugs.**

Researchers at Upstate Medical University in collaboration with the U.S. Army have advanced the development of an experimental Dengue Human Infection Model (DHIM) that is expected to be used widely by drug makers to advance the development of safe and effective vaccines against the dengue viruses. Details of a recent study performed at Upstate describing how dengue virus infects humans and drives immune responses are contained in a paper published Oct. 26, 2022 in the high-impact journal *Science Translational Medicine*. Dengue is a disease spread by infected *Aedes aegypti* and *Aedes albopictus* mosquitos that infects an estimated 400 million people every year, according to the World Health Organization. The severity of dengue can range anywhere from mild flu-like symptoms to life-threatening dengue hemorrhagic fever. Reports show that 20,000 people die from dengue virus infections annually. While dengue virus is not commonly found in the continental United States, the mosquito responsible for the spread of dengue is expanding its range to parts of the South and Southeastern United States. There are no dengue antiviral therapies currently available, and the only currently available dengue vaccine is only recommended for use in individuals previously infected with dengue and living in areas where dengue is common. To develop the model, researchers injected nine individuals with a weakened strain of dengue virus and then monitored their health daily for the first 28 days after inoculation and then in various intervals up to 180 days post-infection. Within the first month of receiving the injection of the virus, all participants had reported mild to moderate symptoms consistent with dengue including headache, muscle aches, and fatigue. All volunteers had detectable levels of the virus in their bloodstream. Researchers used blood samples taken after infection to intensely characterize how the virus replicated and how the immune system responded to the virus. Completing this type of characterization allows researchers to be more informed when they design vaccines or drugs to prevent or treat dengue and allows them to put these countermeasures to the test early in their development. Waickman said the challenges of studying disease in dengue-endemic regions for the development of vaccines can be nearly impossible. For example, is it difficult to capture people in the first few days after infection and before symptoms develop, and many people living in dengue-endemic regions have had a pre-existing dengue infection, resulting in immunity from the getting the virus of a similar strain. And most importantly it is difficult to collect blood samples with a frequency that allows for detailed analyses. Currently there are only a few vaccines in development, but the single dengue vaccine currently available is limited to people 9 years of age and older and only to those who have previously been infected with dengue. The Upstate research team hopes this new Dengue Human Infection Model accelerates vaccine and drug development and starts to lessen the global dengue burden. The study was supported by Johnson and Johnson. Paper authors from Upstate Medical University, in addition to Waickman,

include Joseph Q. Lu, HengSheng Fang, Mitchell Waldran, Chad Gebo, Lisa Ware, Timothy P. Endy, MD, MPH, and Stephen J. Thomas, MD, representing the Department of Microbiology and Immunity and the Institute for Global Health and Translational Sciences. Other authors include Jeffrey Currier, of Viral Diseases Branch, Walter Reed Institute; Liesbeth van Wesenbeeck, Nathalie Verpoorten, Oliver Lenz, Lotke Tambuyzer, Marnix van Loock, of Janssen Pharmaceutica; and Guillermo Herrera-Taracena, of Janssen Global Public Health.

- **Certain type of stroke on the rise, with higher rates among Black people**

Rates of one type of stroke called subarachnoid hemorrhage have increased in older people and men in recent years, and such strokes occur in Black people at a disproportionately higher rate compared to people of other races and ethnicities, according to a study published in the Oct. 26, 2022 online issue of *Neurology*<sup>®</sup>, the medical journal of the American Academy of Neurology. A subarachnoid hemorrhage is when bleeding occurs, usually from a burst blood vessel, in the space between the brain and the membrane that covers it. This type of stroke can be caused by a rupture of an aneurysm, high blood pressure or trauma. For this study, researchers looked only at those not caused by trauma. “Subarachnoid hemorrhages unrelated to trauma account for 5% to 10% of all strokes in the United States, and are often deadly,” said study author Fadar Oliver Otite, M.D., Sc.M., of the Upstate Medical University in Syracuse. “Not only did we find an increase in these strokes over recent years, we also found the incidence was disproportionately higher and increasing in Black people while rates did not increase in people of other races and ethnicities.” For the study, researchers reviewed state hospitalization databases for New York and Florida and identified 39,475 people hospitalized for non-traumatic subarachnoid hemorrhage between 2007 and 2017. Using Census data, they then calculated the annual rates of this type of stroke in those states and compared those rates over time for men, women, various age ranges, races and ethnicities. Researchers found that over the 10-year study, the average incidence of this type of stroke for all participants was 11 cases per 100,000 people. Rates were higher in women with 13 cases per 100,000 people, and lower in men with 10 cases. Incidence also increased with age. For middle-aged men, the average was four cases per 100,000 people while for men 65 and older, the average was 22 cases. Incidence increased over time, by 0.7% on average per year overall, with most of the increase in middle-aged men at 1.1%, older men at 2.3% and older women at 0.7%, while the incidence in young women declined by 0.7%. When looking at race and ethnicity, researchers found incidence was greater in Black people with an average of 15 cases per 100,000 people compared to non-Hispanic white people with an average of 10 cases. Incidence increased in Black people by 1.8% per year while rates for Hispanic, Asian and non-Hispanic white people did not change over time. A limitation of the study was researchers were unable to differentiate between strokes caused by aneurysms and those not caused by aneurysms, which would have provided further insight. Learn more about stroke at [BrainandLife.org](http://BrainandLife.org), home of the American Academy of Neurology’s free patient and caregiver magazine focused on the intersection of neurologic disease and brain health. Follow Brain & Life<sup>®</sup> on Facebook, Twitter and Instagram. When posting to social media channels about this research, we encourage you to use the hashtags #Neurology and #AANscience. The American Academy of Neurology is the world’s largest association of neurologists and neuroscience professionals, with over 38,000 members. The AAN is dedicated to promoting the highest quality patient-centered neurologic care. A neurologist is a doctor with specialized training in diagnosing, treating and managing disorders of the brain and nervous system such as Alzheimer’s disease, stroke, migraine, multiple sclerosis, concussion, Parkinson’s disease and epilepsy.

- **Dr. Eric Olson awarded \$1.8M federal grant for study of fetal alcohol syndrome.**

Upstate Medical University’s Eric Olson, PhD, has been awarded \$1.8 million from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) to study the effects of alcohol on kinase signaling pathways in brain development, specifically in developing fetuses. Olson is an associate

professor of neuroscience and physiology. Olson will use the funding to test why the wiring of the fetal brain, can be so deeply impacted by exposure to alcohol during development. Fetal Alcohol Syndrome (FAS) is one of the leading causes of intellectual disability in the United States. The CDC estimates that .2 to 1.5 per 1000 live births are children with FASD, which can cause central nervous system problems and issues with learning, memory, attention span, communication, vision, or hearing. Olson said this study continues the work of Dandan Wang while she was at SUNY Upstate; she was able to show that ethanol exposure activates a class of kinases in the fetal brain called Src Family Kinases (SFK). He will work to determine which SFK is responsible and whether targeted modification of its activity could possibly protect the fetal brain from this damage. The exact “how” of alcohol exposure damaging a fetal brain is still not fully understood. Olson says this research is the continuation of a decade of work with the Developmental Exposure to Alcohol Research Center (DEARC), an NIH-funded center that started as a joint effort involving faculty at Upstate and SUNY Binghamton but now includes researchers from other institutions. The mission of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) is to generate and disseminate fundamental knowledge about the effects of alcohol on health and well-being, and apply that knowledge to improve diagnosis, prevention, and treatment of alcohol-related problems, including alcohol use disorder (AUD), across the lifespan.

- **Upstate researcher awarded over \$2M to begin first studies of TM cells’ mechanical memory, improving understanding of its role in glaucoma.**

Samuel Herberg, PhD, has been awarded a five-year \$2 million grant from the National Eye Institute to study the role of cellular memory in glaucoma. He’s proposing the first studies to establish the involvement of trabecular meshwork cells’ mechanical memory in the development of glaucoma. Herberg is an assistant professor of Ophthalmology and Visual Sciences, and a researcher at SUNY Upstate’s Center for Vision Research. The trabecular meshwork (TM), located in the angle formed by the cornea and iris in the front part of the eye, is responsible for the regulation of intraocular pressure. Elevations in pressure can lead to glaucoma, a disorder that impacts over 70 million people worldwide. Herberg plans to study how and why TM cells in the eye react differently to stressors when the patient has glaucoma. Initial studies have shown that diseased cells from glaucoma eyes continue to exhibit abnormal behavior even when cultured in a soft physiological environment compared to TM cells from healthy eyes and develop a “persistent mechanical memory” unseen in healthy eye tissue. According to Herberg results from the proposed studies will fill major gaps and potentially transform our understanding of TM cells and their role in glaucoma. He thinks this could lead to not only finding therapeutic targets for patients to prevent irreversible vision loss in glaucoma but help investigate other roles mechanical memory plays in eye function. Herberg was appointed to the Upstate faculty in August 2018. In addition to his post at Case Western Reserve University, he also served as a senior research fellow at Wake Forest School of Medicine. He earned his doctorate from Augusta University (formerly Medical College of Georgia) and his undergraduate degree from the University of Applied Sciences, Darmstadt, Germany.

- **Findings of major Upstate-led clinical trial provide patients with new treatment options.**

A clinical trial led by Upstate Medical University radiation oncologist Dr. Jeffrey Bogart may have major implications for the treatment of small-cell lung cancer. The study, High-Dose Once-Daily Thoracic Radiotherapy in Limited-Stage Small-Cell Lung Cancer, was published Jan. 9 in the Journal of Clinical Oncology. The Bogart-led clinical trial, which is the largest trial in limited stage small cell lung cancer ever performed, suggested similar outcomes and long-term survival in patients treated with twice-a-day versus once-a-day radiotherapy. Previously, the twice-a-day regime was recommended as standard, based on prior trials, but many patients were not able to receive twice-a-day radiation in part due to the challenge of coming in for appointments two times each day. Bogart was the principal investigator of the trial, which included more than 700 patients

throughout the United States from 2008 to 2019. About 30,000 people are diagnosed with small cell lung cancer each year. That type of cancer, which is treated with chemotherapy and radiation, accounts for about 15 to 20 percent of all lung cancer patients, Bogart said. Bogart said the study's publication in the *Journal of Clinical Oncology* has the capacity to change care. The earlier trial showed that radiation administered twice a day for three weeks was a more effective treatment than the same dose of radiation once a day for five weeks, Bogart said. Despite undergoing radiation for a shorter period of time – three weeks compared to five – receiving two doses of radiation in one day is difficult for many patients, he said. Twice daily radiation must be administered at least six hours apart, which means the patient has to be at the hospital twice in one day. That's a tiring regimen and can be difficult for those who don't live nearby. And even though that was the recommended regimen, only 15 percent of patients nationwide opted for twice-daily radiation treatments. Bogart's current trial showed that a higher dose of radiation given once a day over seven weeks showed no statistical difference in survival rates than the twice-a-day regimen. He said the technology today is so much more advanced than it was 30 years ago, including very focused treatment with image guidance that can produce targeted radiation, resulting in fewer side effects. Bogart said the study results now allow for two equal options for patients. The clinical trial was conducted with patients from across the United States, including at Upstate. The Alliance for Clinical Trials in Oncology, for which Bogart chairs the Radiation Oncology Committee, oversaw the trial. Bogart also said that another Upstate Cancer Center radiation oncologist, Michael Mix, MD, is in discussion to lead a new national initiative to study twice daily radiotherapy at a dose of 60 Gy in small cell lung cancer at another dose, and that trial will hopefully start later this year. Bogart said Upstate Cancer Center physicians have also been instrumental in designing national and international trials for lung cancer, prostate and kidney cancer, breast cancer and Hodgkin lymphoma.

- **Study led by Upstate professor reveals that insomnia increases heart attack risk.**

A new study led by an Upstate Medical University associate professor shows that insomnia is linked to a higher risk of having a heart attack. A meta-analysis with a sample size of more than 1 million people revealed that insomnia increases the risk of myocardial infarction, or heart attack, by 69 percent. The study, *Association between insomnia and the incidence of myocardial infarction: A systematic review and meta-analysis*, was published in the prestigious journal *Clinical Cardiology* last month, the abstract presented at the American College of Cardiology Conference and the results have since been featured on media outlets across the United States, including online at CNN. Hani Aiash, MD, PhD, associate professor of cardiovascular perfusion, medicine and assistant dean of interprofessional research in the College of Health Professions, said the findings are extremely significant. Aisah led a team of more than a dozen researchers from around the world on this study.

- **Upstate study links ingredient in sweeteners to liver cancer**

Research conducted at SUNY Upstate Medical University and recently published in *Nature Metabolism* found that commonly used sweeteners may cause cancer, and also that it may be possible to prevent the growth of cancer with medication. Liver cancer is the fifth most common cancer and the third leading cause of cancer-related death worldwide. In a study conceived and designed by SUNY Distinguished Professor Andras Perl, MD, PhD, researchers studied how mice with a genetic mutation also found in humans progress from cirrhosis to liver cancer. Previously, they determined mice with a specific mutation were much more likely to develop cancer; the question now was why. Researchers found the lack of the enzyme transaldolase (TAL) due to a genetic defect caused sugar alcohols to accumulate; a 216-fold increase of erythritol, a type of sugar alcohol, was found in the subjects who were missing TAL. While the lack of TAL causes the sugar alcohol to accumulate, there's another piece to the process. While the study looked at the sugar alcohols created by the body, they are chemically identical to the sugar alcohols found in

many popular sweeteners on the market. The FDA classifies erythritol as “generally recognized as safe” because it is a naturally occurring compound, but the quantities used in foods are generally much higher than is typically created by the body. “Normally the level in the body is very low, undetectable” Perl said. “It’s causing liver cancer, there’s no doubt,” said Perl, about sugar alcohols. He describes studying cancer cells in vitro. “When we treat cancer cells with sweeteners, it causes the proliferation of cancer cells; they grow much more rapidly. In contrast, when we treat cancer cells with inhibitors of aldose reductase, it blocks their proliferation.”

This is the first study to show the link between sugar alcohols and liver cancer, and the data also suggests these sugar alcohols could be linked to heart disease. A paper published recently by researchers at the Cleveland Clinic also concluded patients who consumed erythritol were at a higher risk for major adverse cardiovascular events. Perl thinks this research can help shed light on the impact of these genetic mutations on health. “Apparently, we need TAL to protect us from cancer of the liver and potentially other ailments.” The next step Perl explains is to study the rates of cancer in patients who consume sweeteners with sugar alcohols. Even so, he says this data is enough for people to consider avoiding consuming sweeteners containing erythritol and sorbitol all together. “These studies are quite definitive, that these sweeteners cause cancer.” The Nature Metabolism paper about this study is here.

- **New process for isolating actin from yeast opens doors for protein studies.**

Actin, a crucial protein involved in various cellular functions, has predominantly been studied using actin synthesized from muscle cells. However, this approach neglects the diversity of actin present in different (non-muscle) cell types. Understanding the potential variations in actin behavior is essential for unraveling cellular processes and diseases. To address this challenge, a team of researchers at Upstate Medical University developed a novel process for isolating actin from budding yeast, a widely-used model organism in the field of actin research. Budding yeast offers several advantages for actin studies, including the presence of only a single type of actin, which simplifies the experimental setup. By examining the differences in behavior between isoforms, scientists hope to gain a better understanding of their distinct roles in various cells and diseases. Why is improving the study of actin so important for researchers? “Most of the cells in our body rely on actin to do a whole lot of things,” explains Haarer. “A lot of different labs study the regulators of processes that use actin, so now we can more carefully analyze how those proteins work.” The researchers also emphasized the significance of studying actin to help understand various diseases. For instance, understanding how actin regulates neuron function is crucial for addressing conditions such as ALS (amyotrophic lateral sclerosis) and hearing loss; an endeavor “near and dear to my heart,” says Haarer. By investigating the precise mechanisms of actin in different cell types, researchers aim to identify potential therapeutic targets and develop interventions to combat these diseases. Another benefit to their process? “There’s a familiarity with this tool,” explains Henty-Ridilla. Many labs already work extensively with budding yeast, making the adoption of the technique relatively straightforward. Now, researchers can analyze how specific proteins interact with different actin isoforms in a more controlled and precise manner. This paper was authored by several SUNY Upstate researchers along with Haarer and Henty-Ridilla including PhD candidate Morgan Pimm, Ebbing De Jong, PhD, and Dave Amberg, PhD. You can read their full article; the cover story for the May 2023 issue of the Journal of Cell Science, here. <https://journals.biologists.com/jcs/article/136/9/jcs260540/308923/Purification-of-human-and-actin-from-budding-yeast>

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