



RIVERSIDE

School of Medicine

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Five Year Review-September 20, 2021

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Fifth Year Review

Self-assessment and Long-Range Plans
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History of the University of California, Riverside School of Medicine

The University of California, Riverside (UCR) began educating medical students during the early 1970's as a branch campus of the University of California, Los Angeles (UCLA). Through this branch campus two-year biomedical sciences program, students were educated in the basic sciences for the first two years at UCR, and completed their final two years of clinical training at UCLA where they graduated with the medical doctor (MD) degree from the David Geffen School of Medicine. The Biomedical Sciences program was renamed the UCR/UCLA Thomas Haider Program in Biomedical Sciences 1997 in honor of Dr. Thomas and Salma Haider who played a pivotal role in the development of physician training programs at UCR. Prior to the opening of the UCR School of Medicine in 2013, approximately 850 students completed the beginnings of their medical degree in the UCR/UCLA Thomas Haider Program in Biomedical Sciences.

The UCR School of Medicine was founded in 2013 as the first public MD-granting medical school in California in over 40 years. The success of the UCR/UCLA Thomas Haider Program in Biomedical Sciences served as the foundation for the development of the UCR School of Medicine. Through the tireless efforts and support of the local community, the state legislature, the UC Riverside campus and the UC Board of Regents, UCR SOM in 2013-14 received \$15 million in annual state funding to open and fund the medical school. The School of Medicine has a unique mission: to train a diverse physician workforce to serve the people of Inland Southern California (Inland Empire) and to develop research and clinical programs to address the needs of this medically underserved region. UCR School of Medicine is the only community-based medical school in the UC system, and as such, it does not own a hospital or have a primary hospital partner. The School of Medicine has multiple hospital affiliates which offers a clinical platform to train its medical students and resident physicians, as well as many community-based ambulatory (out-patient) partnerships.

Under the direction of its Founding Dean, UCR School of Medicine received its preliminary accreditation in 2012 and enrolled its Inaugural class of 50 medical students in August 2013. The Biomedical Sciences faculty from the UCR/UCLA Thomas Haider Program were integrated into the School of Medicine to teach the medical students and continue their respective research. Residency and fellowship programs sponsored by the School of Medicine and by hospitals in partnership with the school opened in specialties of family medicine, general internal medical, general surgery, psychiatry, primary care pediatrics and cardiovascular

medicine. A significant number of physicians were hired prematurely in anticipation for launching the clinical enterprise or physician practice plan.

Dean's 2016 Assessment of School of Medicine

In May 2016, I was appointed as the Mark and Pam Rubin Dean and Chief Executive Officer (CEO) for Clinical Affairs of UCR School of Medicine. In 2019, the role of vice chancellor for health sciences was added to my responsibilities to better align with the structures at other UC campuses with medical schools. My assessment of the School of Medicine's administration and four-fold mission of education, research, clinical care, and service revealed in 2016 the following:

- The Liaison Committee on Medical Education (LCME) site visit for the medical school's full accreditation was scheduled within 9-months of my arrival and the SOM was behind schedule in its preparation.
- The School of Medicine had not implemented a Strategic Plan.
- The research mission was strong but needed more alignment with seeking National Institutes of Health (NIH) funding. There was insufficient research space for the faculty.
- The education mission was strong, although a systematic review of the curriculum had not been conducted.
- The assessment and evaluation process for the medical education program was fragmented without a systematically built educational database.
- There was only one professional staff member in the Office of Faculty Development and very few faculty development programs.
- The initial \$15 million in annual state funding was insufficient to adequately operate and sustain a medical school.
- The School of Medicine did not have adequate space to scale beyond 80 medical students/class or house the necessary faculty and staff, nor did it have a plan for securing additional space.
- Students lacked sufficient study space and the simulation center was inadequate.
- Policies and procedures were not codified and all budgets operated from the Dean's Office without financial management at the units or departmental levels.
- The SOM lacked significant security and IT infrastructure, creating significant security vulnerabilities and inefficiencies.
- The clinical enterprise was being built without a strategic plan and a significant number of clinicians had been hired without a clinical setting to practice but many with guaranteed salaries.
- The medical school was extremely dependent on community-based faculty due to insufficient full-time faculty and there was a shortage of staff necessary to scale the operations of the medical school.

Despite the many challenges unveiled, the faculty and staff were passionate about the medical school's mission: to train a diverse physician workforce and develop research and clinical programs to meet the needs of the people of the Southern California. The mission resonated with my values as someone who grew up in a rural community and experienced first-hand the meaning of poor access to health care and other social determinants of health.

At the beginning of my tenure in the SOM, I worked with internal and external stakeholders to address each of these challenges. I established the following 17 major goals to strengthen the SOM, sustain the school in its formative years, and position the school for future growth. Each goal with their associated outcomes is described in the remainder of this self-assessment.

Goal: Prepare School of Medicine (SOM) for full accreditation and execute a successful Liaison Committee on Medical Education accreditation (LCME)

UCR School of Medicine received its preliminary LCME accreditation 2012 which allowed the medical school to recruit and accept students to the Inaugural class in August 2013. The final step for full accreditation was scheduled in January 2017, just eight short months after I arrived to lead the SOM as Dean. The SOM accreditation taskforces were already formed and the work had begun under the leadership of Dr. Paul Lyons. While progress had been made, I hired a consultant to assess the SOM's readiness for the accreditation site visit. The consultant confirmed my assessment that preparation of the Data Collection Instrument (DCI), and associated appendices were far behind schedule. Together with the leadership, we identified potential vulnerabilities and set about strategies to mitigate them prior to the site visit. Additionally, I scheduled – and personally attended and participated in weekly early evening meetings to review progress and set benchmarks leading to the accreditation site visit. From July 2016-January 2017, we worked tirelessly to prepare for the full accreditation of the medical school. SOM had a very successful LCME site visit in January, 2017 and the **LCME site reviewers highlighted five key strengths of the SOM:** “1) faculty, staff, and students' commitment to the mission of the SOM, 2) a cohesive and competent leadership team, 3) strong commitment to diversity through SOM's mission statements and actions taken to foster diversity, 4) a distinctive and successful instructional activity, the Longitudinal Ambulatory Care Experience (LACE) program, and 5) ranking of 45th among 84 medical schools in total dollar amount of institutional grants and scholarships without a service commitment.

The SOM received its LCME notification of Full Accreditation in June, 2017, a few days before the Inaugural Class of medical students graduated. The Full Accreditation of five years was the maximum number of years for new medical schools and the next accreditation visit was set for January 2022.

Under the leadership of Brigham Willis, MD, Senior Associate Dean for Medical Education, and Elizabeth Morrison-Banks, MD, the faculty lead for accreditation, the SOM is preparing for its next accreditation visit. As with our previous accreditation process, I am very involved and would have read all materials before submission. The SOM is in a much better position for this

accreditation and the SOM LCME Taskforce as well as designated committees are doing an excellent job. I am very confident that the SOM will have a successful LCME accreditation in January, 2022.

Goal: Revise Strategic Plan and Execute on Objectives

Within three months of beginning my role as Dean of UCR School of Medicine, I met with the SOM leadership, faculty, and staff to engage in discussions about the School of Medicine's values. There were no specific codified values that would guide our work, and I felt it was critical for SOM to identify values that would be our standard guideposts. Through an iterative process which included SOM leaders, faculty, and staff, the SOM values were codified. **SOM values are: Integrity, Inclusion, Innovation, Excellence, Accountability, and Respect.** These values are incorporated into the standards and goals of each division, department, and unit, and all employees and students are encouraged to internalize the SOM values and demonstrate the values at UCR and externally.

I engaged SOM leaders and conducted a **Comprehensive Assessment of the School of Medicine** which revealed that the SOM was challenged in each of its three missions: education, clinical practice, and research. Many of the challenges arose from the unique historical circumstances of the founding of UCR SOM, but none of the challenges were themselves unique. All of them were the familiar problems of establishing new, community-based medical schools. The top findings of the comprehensive assessment included:

- UCR SOM faced operating deficits since its inception and had to rely on UCR Central Campus for financial support to close annual operating deficits.
- At its current size and level of state support, UCR SOM operating deficits were projected to grow and require continued subsidy from the Central Campus.
- We have exhausted our current space and are unable to grow beyond our current class size.
- As a community-based school, we are reliant on a network of community hospital partners, volunteer faculty, and clinics for clerkship rotations and residency programs, which creates operational complexities and financial challenges.
- In the absence of a primary hospital partner, the faculty practice (UCR Health) has struggled to define and implement a financially viable growth strategy.
- The UCR Health clinical practice is small and operates below capacity both in terms of space and physician productivity.
- There was interest in enhancing the degree of alignment between our research agenda and our mission, and opportunity to do so.

In July 2016, with the assistance of Kathy Barton, former Assistant Dean for Strategic Initiatives, I engaged the SOM stakeholders to initiate a strategic planning process to develop the **SOM 2016-2020 Strategic Plan** and aligned its objectives and measurable outcomes with the UC Riverside campus-wide strategic plan. The "UCR 2020: The Path to Preeminence" had four

pillars – academic excellence, access, diversity and engagement. The School of Medicine embraced these pillars and added a fifth pillar, service, due to its importance to the social mission of the school. **Three half-day planning retreats were held in July and August 2016 focusing on the three mission areas of the school – education, research, and clinical care.** Retreat participants included medical school faculty, students, and staff, as well as faculty from other UCR departments, campus leadership, and community stakeholders including representatives of clinical affiliates, community-based organizations, public officials, and donors. (See Appendix for summary of strategic plan)

With the support of UC Health, Chancellor Wilcox, and the University of California Office of the President (UCOP), the SOM hired Manatt consulting firm to engage us in a comprehensive strategic planning process to develop the **SOM 2020-2025 Strategic Plan for Sustainability** (See Appendix). With the assistance of Linda Reimann, Assistant Dean for Strategic Initiatives and Chief of Staff, multiple groups within the SOM, hospital affiliates, and community members took part in this strategic planning process. I also appointed a **School of Medicine National Advisory Board** to share insights, experiences, and solutions from other schools of medicine (SOMs) and inform UCR SOM's ongoing strategic planning efforts, particularly with respect to partnerships and financial sustainability. The strategic plan proposed a suite of imperatives and strategies to modestly improve the financial health of the school. It was designed to address the operating deficit of the school at its current size, to better position UCR SOM to pursue its mission and to identify additional funds, including support from the State of California, that would enhance the current educational, clinical, and research programs and to support future enrollment growth.

The strategic plan comprises five imperatives for the next three to five years intended to stabilize the financial position of UCR SOM in the short term and position us for long term sustainability and growth.

1. Regularize and modestly grow our education programs.
2. Strengthen UCR Health and develop long-term partnerships with local health systems.
3. Deepen our commitment to clinical and population health research and better integrate our education and research missions with the basic science departments.
4. Embark on a UCR SOM-led campaign of strategic philanthropy to bolster the school's finances.
5. Improve our ability to execute our plans.

The SOM has already made significant progress on the 2020-2025 SOM Strategic Plan for Sustainability, and the accomplishments are highlighted throughout my five-year review summary. Under the leadership of Linda Reimann, and working closely with all departments, units, and UCR Health, **our planning processes and decision-making are assessed for how they align with our strategic plan.** All departmental strategic plans are aligned with the imperatives of the SOM Strategic Plan for Sustainability. During the annual budget call, each unit and department must present their goals, objectives and accomplishments within the framework of the SOM's strategic plan.

Goal: Secure Space for School of Medicine

Medical Student and Pathways (Pipeline) Program Space

The SOM medical and graduate students shared a limited number of cubicles and study rooms in a “trailer” with undergraduate students enrolled in SOM pathways programs. Not only was the space insufficient, the trailer needed significant repairs. Some study space was available in the Orbach Library located adjacent to the SOM Education Building, however the number of study carrels and study rooms was insufficient. I recognized this critical space need and had the foresight to negotiate for student space in my recruitment package. Within the first year of joining UCR, I work with the Provost and Chancellor to implement a plan to begin construction of a new facility to provide student space for SOM medical and graduate students as well as the Medical Scholars Program for undergraduates. In early 2018, the new **Medical Student Lounge** opened to provide expanded medical student study and lounge space near the SOM Medical Education Building. The space was equipped with a kitchen, study carrels, study rooms and exercise equipment. Additionally, five new offices were added for the SOM Pipeline Programs, and space to house the **Medical Scholars Program**.

Simulation and Clinical Skills Space

Prior to joining the UCR School of Medicine, I addressed the lack of adequate simulation and clinical skills space for the medical students with the Provost and Chancellor and I was assured that we would work collaboratively to address this problem. The Liaison Committee on Medical Education (LCME) also cited this space as one issue that the SOM had to address. Through collaboration with Steven Mandeville-Gamble, University Librarian, space was secured in the Orbach Library for the simulation and clinical skills space. Working with the UCR campus office of Planning, Design and Construction, SOM Facilities, Brigham Willis, MD -Senior Associate Dean for Medical Education, and Chris Miller -Director of Simulation, the SOM engaged in a two-year process to construct a state-of-the-art **Center for Simulated Patient Care (CSPC)** which opened April 2021. The CSPC is a simulated clinical area (clinic, hospital, operating room, etc.) which provides a risk-free environment where medical students, residents, practicing physicians, and clinicians from other disciplines can perfect their clinical and communication skills. The overarching objective for the CSPC is to improve patient care, patient safety, and provider safety. This 11,000-square-foot facility offers almost 10 times more space than SOM used for simulation and clinical skills in the SOM Education Building I. The facility includes 16 clinical exam rooms, four classroom spaces that seat 20, a 600-square-foot simulated operating room, and a 550-square-foot obstetrics/gynecology (OB/Gyn) neonatal intensive care unit suite. The exam rooms are used by first- through third-year students to learn standardized patient care by interviewing actor patients and formulating diagnoses and treatment plans.

Research Space

In preparation for the opening of the SOM and the incorporation of the Biomedical Sciences faculty from the Thomas Haider Biomedical Sciences Program, UCR constructed a building to house the SOM research enterprise. The School of Medicine Research Building housed the labs of the SOM Biomedical Sciences’ faculty, however the first floor of the building was not completed and remained a “shell.” Through my discussions with the Chair and faculty of the

Biomedical Sciences Division, I learned that the space was insufficient to provide research space for new faculty hires and offered limited space for current biomedical sciences faculty. As part of my recruitment package, the Chancellor and Provost provided resources to complete the **First Floor of School of Medicine Research Building**. The completion of this facility added **18,887 square feet** of space comprised of seven faculty offices and labs, three write-up spaces for post-doctoral and graduate students, a new conference room, multiple support rooms, including cell culture space, and an equipment corridor providing emergency power to ultra-low temperature freezers and cold storage. The space also contains a lactation room for nursing mothers.

School of Medicine Education II Building

In preparation for the opening of the School of Medicine, UCR-campus leadership identified a building on campus for renovation to house students, staff, and administrative offices. This building, known as School of Medicine Education Building I, includes a 100-seat auditorium, few patient exam rooms, problem-based learning classrooms, an anatomy laboratory, and administrative office space. All SOM auxiliary services, clinical departments, and graduate medical education offices are located six-miles from the SOM Education Building I.

Our goal was to secure space on the UCR-campus in close proximity to SOM Education I to provide sufficient facilities for a growing medical school and to co-locate all off-campus SOM functions. I worked tirelessly with legislative representatives (Senator Richard Roth, Assembly member Jose Medina), UCR campus leadership, SOM leadership, and UCOP to advocate for a state-funded building for the SOM. The State Budget Act of 2019 provided \$100 million to build a new education and administration building for the UCR School of Medicine.

After more than a year-long process of various approvals for the building, construction began during Summer 2021 on the **School of Education Building II** which will be located adjacent to SOM Education Building I. This LEED platinum-certified facility is 90,000 gross square feet, which will provide 57,000 square-feet of assignable space. The facility will provide adequate space for the SOM's current needs, as well as allow for future expansion of the class size up to 125 students/year. It will allow the SOM to co-locate all auxiliary services and offices currently housed six miles from campus. The design features an urban downtown theme that includes outdoor seating, terraces, and landscaping that will complement the existing buildings around it. The facility provides instructional space, offices, and support rooms, as well as space for collaboration and student life. Overall, the SOM Education Building II will provide space to facilitate interaction, build synergies and partnerships and support student success.

Goal: Develop SOM Financial Infrastructure, Enhance Administrative Structure, and Bolster Compliance Programs

During my recruitment process, I requested a summary of the SOM finances and materials presented were not organized in a fashion to sufficiently determine the financial state of the SOM. Materials erroneously depicted that the SOM had more than \$30 million in reserves, and there was no department or unit budgets. All financial requests were handled at the level of the Dean's Office and there was no accountability at the departmental or unit level with the exception of the Biomedical Sciences Division which was previously part of the Thomas Haider Biomedical Sciences program. Within two months of my arrival, I initiated an assessment of the SOM finances with the assistance of the Interim CFAO and a financial consultant. Much to my dismay, the outcome of the financial assessment revealed that the SOM had a \$20 million deficit and if the SOM continued on the same trajectory, the deficit would reach more than \$40 million by FY22. I met with the Chancellor and Provost to inform them of the results of the financial review and my plans to address the issues. I met with the SOM leadership and held a Town Hall to inform the SOM faculty and staff of the dire state of the SOM finances and to elicit their support. We made difficult decisions over the next year and a half to quell the growing deficits.

The School of Medicine did not have an adequate financial infrastructure to provide financial oversight, develop budgetary processes, create financial policies and procedures, or ensure financial fidelity. Several of the financial leadership positions were held by individuals without financial expertise.

Hire key positions to create a strong financial infrastructure

With the assistance of the Interim CFAO Ginger Osman and financial consultant Maria Aldana, we developed a financial organizational structure which included key positions to assist in building the SOM financial framework, engage in a substantial clean-up of the financial ledger, and assist with strategic financial planning. These positions included: **Chief Finance and Administrative Officer (CFAO), Controller, and Data Analytics and Forecasting Analyst.**

Establish a Finance and Administrative Infrastructure

The Interim CFAO, Ginger Osman and Controller, Maria Aldana worked collaboratively to develop a framework given the lack of budgets for units or departments and lack of financial reports. In theory, approximately 80% of the finances were being managed under the Dean's Office and the Division of Biomedical Sciences accounts, thus creating an unclear financial performance picture. Given the lack of financial structure, units were spending without any limitations, accountability or awareness. We engaged in a step-wise process to establish a financial infrastructure, educate stakeholders about SOM's financial state, create fiscal fidelity, and eliminate deficits.

Development of Budgets (FY2016) - The team developed a plan which included meeting with each unit and department heads to develop proposed budgets in an effort to understand each

unit's needs. Once the budgets were established, reviewed, and approved, the budget process became an annual recurring step in the overall School's budgetary oversight.

Establishment of Monthly Financial Reports (FY2016/FY2017) – Shortly after solidifying and sustaining an annual budgetary process, the team also designed and developed standard financial reports for each unit head and the reports are provided on a monthly basis. The reports depict budget to actuals for each operating budget to provide the unit head with a tool to effectively manage his/her own budget.

Established Other Dashboards and Standing Reports (FY2017-Date) – Since the budgetary undertaking, we designed a series of other standing reports that are used by Principal Investigators, clinical providers, etc., to understand the financial position and data points of various metrics. This reporting initiative is under continuous improvement, and the most recent change was the implementation of Power BI, the reporting platform launched by the campus. This allows us to continue to build reports and dashboards for various groups across the SOM management and leadership teams.

Units Size and Infrastructure (FY2018/FY2021) – We assessed the growth across the academic units, based on key metrics (i.e. faculty FTE, C&G volume, revenue volume, GME programs, etc.) and created Finance and Administrative Officer (FAO) positions across the various units. Currently, there are 9 FAOs for the academic units, including UME/Student Affairs). This was a key milestone that was essential for continued expansion of the level of fiscal awareness and accountability across the school.

Stabilization of the Sponsored Research and Programs (SRP) (FY2020) – In FY2020, Maria Aldana was hired as SOM Chief Finance and Administrative Officer, and I tasked her with conducting a review of SPR and developing a plan address any deficiencies. SRP was in significant disarray with reporting and reconciliation of Principal Investigator accounts. Under my direction, the CFAO worked with leadership, PIs and SRP stakeholders to restructure the unit. She worked side-by-side with the unit team members to reconcile funds, build reports, execute trainings, etc. Most importantly, the SRP team set forth to develop and implement a new standard report for PIs that has now been in place for at least 18 months, where every PI receives a report monthly. This has helped to significantly improve C&G funding administration and to eliminate most of the long-standing deficits.

Process Improvement Initiative in Support of Sustainability and Continuity (FY2020) - In order to sustain the improvements in the administrative operations and financial management within the SOM, in FY20, I approved an FTE for a **Process Improvement Advisor**. This position was charged to work with unit and department leaders to develop process improvement strategies to improve efficiency and increase productivity. We have established a **Process Improvement Unit** with its designated web page and a central location to store all the completed process improvement workflows. This initiative has been imperative for the continuous growth and has also been leveraged as a training tool for new SOM team members. To date, we have developed **over 50 process improvement workflows**.

Development of Multiple Finance and Administrative Guidelines

Over the last 5 years, I have also requested the development of multiple key guidelines and procedures to clarify and manage the administration of key financial funding pools, such as start-up funds for ladder rank faculty, clinical salary guarantees, funding of credentialing services, implementation and review of annual assessment on clinical (external funds) and its distribution and utilization, among others.

Goal: Address SOM Security and Information Technology (IT) Infrastructure

As a new medical school, the SOM lacked significant security and IT infrastructure, creating significant security vulnerabilities and inefficiencies. One of my major priorities shortly after joining the SOM was to address these security risks and develop the proper IT infrastructure for a medical school. A closely related priority was to understand and address the IT infrastructure needs of the faculty and staff, including those that were putting the SOM at risk and out of compliance. In partnership with the security and compliance officers, extensive assessments were made to fully understand the numerous technology deficiencies and vulnerabilities.

At the end of 2015, the School of Medicine (SOM) Office of Information Technology (OIT) department hired an interim Chief Technology Officer (CTO) and shortly thereafter, a Chief Medical Information Officer (CMIO) was also appointed to help lead and complement the OIT. In 2016, Armando Gauna was appointed as permanent CTO and he worked collaboratively with John Luo, MD, CMIO, to address the SOM IT needs.

I charged this IT leadership and the Office of Compliance under the leadership of Paul Hackman, JD, LL.M., to address the security vulnerabilities and deficiencies identified in the IT assessment report and to conduct periodic risk assessment to ensure ongoing monitoring of risks and security vulnerabilities. The following critical IT and security issues, listed by year, were addressed:

In FY16, the OIT and Compliance teams addressed the logistics of the SOM data center and built out the IT requirements in the first SOM outpatient clinic at the Evans Park Clinic, including the electronic medical record. The data center was not housed in a HIPAA-compliant section of the existing facility. This was remedied by moving the data center to Dell Private Cloud (WTC), a major undertaking.

In FY17, the OIT and Compliance teams focused on numerous security initiatives, as noted below.

HIPPA Compliant Infrastructure

- **Medical school user account and email migration project**—moved faculty, staff, and student active directory accounts into a HIPPA-compliant infrastructure.

- **SolarWinds 3rd party patching project** – OIT also implemented SolarWinds, a system to help the IT team push software updates to non-Microsoft products. This was important because the product allows OIT to manage vulnerability risks not covered under standard Windows security and software patching.
- **Secure Communication Platform** – OIT and the Security Officer launched the TigerText product to implement a HIPAA compliant solution for text messaging within the clinical enterprise and other faculty and staff in the SOM.
- **EPIC electronic medical record (EMR) implementation** – In order to follow UCOP requirements, the SOM moved from the Practice Fusion EMR system to EPIC System. This migration project provided UCR Health with the proper and secure solution, with the added benefit of compatibility with UC and many non-UC medical providers.
- **Implementation of Palo Alto Firewalls** – With the need to secure the SOM data traffic with the campus and off-site locations, OIT implemented Palo Alto firewalls. Before the Palo Alto project, everything at the SOM was running on Public IPs, windows Firewalls, and no border Firewalls, which posed a significant potential exposure. In collaboration with Compliance, we undertook the first third-party Information Security Risk Assessment, performed by Protivity.
- **Outpatient Clinics IT and EMR build out**—The SOM built out IT and EMR in the multispecialty clinic at Citrus Tower located downtown Riverside and the Airport Tower Clinic in Orange County.

In FY18, we continued the implementation of key IT initiatives, as highlighted here:

- **Backup and recovery solution** – implemented within the Dell Datacenter (WTC) to better protect SOM data from system failure and deletion.
- **Implementation of Office 365 Exchange** – This project removed SOM from the on-premises platform to the Microsoft Cloud to deliver a more secure and stable email environment and nearly unlimited mailbox space, among other benefits.
- **Proofpoint advance email encryption and security tool** – implemented to defend against threat actors, malware, credential phishing, and impersonation across the email platform, cloud, and mobile messaging. This important initiative aligned with the UCOP requirements for all campuses.
- **Advanced Endpoint Protection (Sophos)** – This software was made available for all desktops and workstations. In collaboration with Compliance, SOM IT engaged in the second third party risk assessment, performed by CynnergisTek.

In FY19 two major IT projects took precedence:

- **Relocation of IT infrastructure from data center** – This project enabled us to move the previous data center to current infrastructure, Microsoft Azure. The move to Azure enabled SOM to create a synergy with Infrastructure, Office 365 tools, and security tools with Microsoft. The consolidation within the Office 365 suite enabled us to implement an improved IT solution that migrated the SOM away from the legacy file server to the Microsoft platform, thus providing a more secure VDI/Teams/O365 solution.

- **Qualys** – implemented this vulnerability tool provided by UCR Information Technology Solutions (ITS). This enabled the SOM to identify which workstations and servers have vulnerabilities.

In FY20, SOM launched the setup a Single-Sign-on Solution (SSO) for all Office 365 suite, SaaS solutions, and internal web applications, primarily to address secure access concerns.

- **Single Sign-in Solutions (SSO)** – SSO helps ensure secure login to applications.
- **Virtual Desktop Infrastructure (VDI)** - When COVID-19 shut down businesses across the world, we established VDI, which enabled faculty and staff from off-campus locations to access files and applications through a securely isolated solution.
- **Build-out of IT and EMR in New Pediatrics Clinic in La Quinta (Coachella Valley).**

In FY21, we continued security enhancements that did not previously exist within SOM and upgraded and enhanced the IT infrastructure for the newly opened Center for Simulated Patient Care.

- **Deployment of HIPAA Zoom** – the HIPAA-compliant Zoom security tools provide a secure platform for the SOM’s teleconferencing needs and aided in the pivot to telemedicine during the COVID-19 pandemic.
- **Smart Deploy project** – this project resulted in a system hardening for SOM’s desktops and laptops, and a repeatable imaging process, reducing imaging process time from four hours to the current 20-30 minutes.

Recently, I hired a **Chief Information Officer (CIO), Simon Linwood, MD, MBA** who will partner with the Chief Technology Officer, the IT team, and campus ITS to continue to elevate the SOM IT platform, secure functionalities, and promote state-of-the-art IT practices. The CIO will also have oversight of the medical information and health informatics in UCR Health.

Goal: Integrate and Elevate Compliance in the School of Medicine

In 2016, compliance did not play an integral role in the administration within the SOM, and stakeholders did not view the Office of Compliance as a critical unit that played an imperative role. I elevated **Paul Hackman, JD, LLM, Chief Compliance and Privacy Officer to a leadership position, and I joined the Compliance Committee as Chair**. Since 2016, I have supported an increase in staffing resources from 3.5 FTEs to 6.0 FTEs in 2021. I charged the SOM Compliance Office to expand its auspices to include policies-procedures-forms, audit and monitoring, response and remediation, as well as education and training. Under the leadership of Paul Hackman, the SOM Compliance Advisory department has implemented the following:

Policies, Procedures and Forms:

- The Compliance department developed and manages a defined and robust policy and procedure process. In the past 5 years, the department has worked with stakeholders in all areas of the SOM to write 138 policies, which guide the school's day-to-day practices.
- The department has also taken the lead to develop a system for vetting and approving forms, particularly those used in the clinical setting, ensuring Spanish translation and NCR copies for patients.

Auditing and Monitoring

Over the past five years, the department has formalized a multitude of activities to monitor compliance with legal, regulatory, and policy requirements, including:

- Established a program for screening all employees and vendors each month against federal and state exclusion databases, a requirement for entities participating in federal healthcare programs.
- Actively monitored LMS course completions and following-up on delinquencies.
- Developed a system for performing ongoing documentation and coding audits, including formally reporting on results and trends, and maintaining a re-bill log.
- Performed ongoing formalized audits to ensure compliance with legal and contractual requirements (contracts and grants audits, inventory audits, Business Associate audits, user access audits, performing privacy rounds, etc.)
- Conducted more than 60,000 vulnerability scans of SOM systems each year and working collaboratively with OIT to patch and remediate identified weaknesses.
- Actively monitored access to the Electronic Medical Record.
- Performed security risk assessments on all medical equipment and all IT procurement requests as well as all SOM purchases involving UC data (such as lab equipment, software, cloud services, etc.).
- Reviewed all billing for contracted physician services, prior to it being submitted for processing.
- Reviewed, advised on, and approved all draft contracts (approximately 100 per year) prior to their submission to legal review.
- Monitored all faculty Outside Activity Tracking System (OATS) submissions and following up on non-compliance with APM rules.

Response and Remediation

Over the past five years, the department has established itself as a reliable resource for others:

- Created and actively managed the patient grievance process, with quarterly reporting of issues and their resolution to the Compliance Committee.
- Investigated and resolved all identified or suspected non-compliance
- Created and maintained a database for tracking and trending compliance issues.
- Provided active guidance to departments by serving approximately 30 SOM, campus, and system-wide committees and task forces.
- Provided as many as several dozen consultations daily to faculty, staff, and students both within the SOM and throughout the UCR campus.

Education and Training

The department has remained current on legal and regulatory changes and serves as a resource to educate faculty, staff, and students. Examples include:

- Trained physicians on documentation and coding requirements, including providing extensive training on the ICD-10 and the new 2021 rules on Evaluation and Management Services.
- Published a quarterly newsletter, *The Advisor*.
- Provided live training for faculty, staff, and students on a myriad of policies as well as legal and regulatory requirements (topics such as informed consent, mandated reporting, HIPAA, FERPA, the Information Blocking Rule, Fraud, Waste, and Abuse, etc.).

Goal: Address School of Medicine Funding Gaps

The SOM opened in 2013 with State appropriations of \$15M of ongoing funding as the initial start-up of the medical school, however there were no proposed plans to increase the funding. Consequently, the SOM depended on the University to fill the gaps in funding for much needed infrastructure, and this was not sustainable. Securing funding to build the infrastructure of the medical school, expand the programs and increase the medical school class size was a priority of the SOM strategic plans.

With several years of persistent advocacy, unwavering support of legislative representatives, particularly Senator Richard Roth and Assembly member Jose Medina, as well as advocacy of community members, UCR campus, UCOP and the Board of Regents:

- The State Budget Act of 2018 appropriated **\$15 million in one-time funding** for the Department of Psychiatry and Neurosciences to **expand its residency training program and telehealth services** to address the underserved population in the Inland Empire
- The State Budget Act of 2019 provided **\$100 million to build a new education and administration building for the UCR SOM** that would allow growth in enrollment to 500 MD students and address accreditation concerns about student space and student access to faculty,
- The State Budget Act of 2020 allocated **an incremental \$25 million in annual operating funds to the UCR SOM** that will both secure the current activities and support future growth
- The State Budget Act of 2021 provided **\$35 million in one-time funding for both SOM/UCR Health expansion and to explore the future model of the academic health system**

This support has allowed the SOM to alleviate the subsidies from the UC Riverside campus, and to continue to focus on its mission through strategic growth in the academic mission, and the expansion of the clinical mission.

Goal: Elevate and Grow SOM Philanthropy Efforts

UCR's "Living the Promise Campaign" had already begun when I joined UCR as Dean of the School of Medicine and the SOM goal was set for \$17 million. I immediately determined that the goal fell short of our potential to engage philanthropy therefore I proposed an increase in SOM's goal to \$20 million, and brought SOM stakeholders together to begin to think strategically about philanthropy. Under the leadership of Edna Yohannes, Executive Director of Development in the SOM, much effort was expended in building the prospect pipeline and infrastructure of the SOM Development Office.

The SOM worked to build a culture of philanthropy within by engaging SOM leadership, faculty, staff and students in development activities. SOM stakeholders within as well as the SOM Advisory Board participated in development planning and identifying prospects for philanthropy.

Under the leadership of Edna Yohannes, one of the most significant accomplishments was that SOM exceeded its goal in UCR's "Living the Promise Campaign", by 21% thus raising \$24 million compared to \$20 million. Other key accomplishments include establishing a Mission Makers campaign, Medical Education Gala, and securing Chair endowments.

The **Mission Makers Campaign** was launched with an initial goal of \$250,000 by 2020, however the goal was exceeded by 2018 and SOM raised the goal to \$400,000. By July 2020, the SOM exceeded the second goal ahead of schedule raising a more than \$450,000. *Mission Makers are students, faculty and staff of the School of Medicine who believe in its mission and have made financial contributions to ensure its success.* In 2018, the SOM organized an annual "**Celebration of Medical Education Gala**" to support the Mission Awards program which provides tuition and fees to students for a two-year or four-year period and students in turn make a commitment to return to the Inland Empire to practice after completing residency training. The Gala was held in 2018 and 2019, however became a virtual event in 2020 due to the pandemic. For three consecutive years, proceeds from the Gala supported three medical students with a two-year Mission Award.

Other key events which brought attention to philanthropy in the SOM include: Health and Wellness Series, The Thomas and Salma Haider Biomedical Breakthrough Lecture Series, and SOM Open House Dean's Luncheon.

During the period of 2081-2019, **two Presidential Endowed Chairs were established**, the **S. Sue Johnson Presidential Endowed Chair** for the Professor and Chair of Biomedical Sciences held by Dr. Monica Carson and the **Bruce D. and Nancy B. Varner Endowed Presidential Chair in Cancer Research** held by Dr. Adam Godzik.

The graph below depicts the SOM philanthropic support in dollars as well as gift counts. We expect to continue to elevate and grow philanthropy exponentially over the next 5-years



Goal: Expand the Office of Academic Affairs, Faculty Development, and Staff Professional Development

Faculty and Staff Professional Development

In 2016, the Office of Faculty Development was a one-person unit which assisted the teaching faculty of the medical education program, however clinical and research faculty didn't have ongoing programming for faculty development. I envisioned the Office of Faculty Affairs working collaboratively with the Office of Academic Affairs to expand faculty development programming for all faculty. Meanwhile, the Office of Academic Affairs would also improve and expand the faculty appointments, merits and promotion processes.

Office of Faculty Development

With the recruitment of Rosemary Tyrrell, EdD, the Office of Faculty Development (OFD) experienced significant expansion and refinement. In FY16, when I arrived as Dean of the School of Medicine, the OFD was offering 21 programs for the teaching faculty, and by FY21 more than 100 programs were offered, 88 directly from the OFD and 16 programs in

partnership with the Office of Academic Affairs (OAA). The OFD has become an integral part of the School of Medicine's commitment to teaching excellence and centers the strategic goal to provide more dynamic and effective ways to teach our curriculum.

The Office of Faculty Development has grown from a one-person department staffed only by the director, to a five-person unit that includes a program coordinator, instructional designer, instructional technologist, and an administrative assistant. The addition of an instructional designer and instructional technologist created a small educational technology unit within the office. The addition of a program coordinator allowed the OFD to provide and manage continuing medical education (CME) services for the entire UCR School of Medicine. In addition to these full-time staff members, the department is also supported by the addition of part-time interns, student workers, and an administrative fellow. The OFD also provides one-on-one consultations, curriculum mapping, teaching observation, instructional design, and coaching on presentation skills.

The OFD provides on average 9-10 opportunities for faculty learning per month. In FY17, the **Teaching Excellence Academy** was established as a flagship program of the Office of Faculty Development and is a highly competitive program wherein an individual must be nominated to join. Using a community of practice approach, a small cohort takes a deep dive into teaching and learning. The members of the Teaching Excellence Academy also are required to create a scholarly teaching project, present it at our annual Conference on Teaching and Learning, and submit it for publication. The Teaching Excellence Academy has graduated three cohorts and the programming has grown to include a two-year clinical teaching series, a teaching essentials series, a teaching innovation series, as well as a quality improvement and patient safety series.

The Office of Faculty Development worked with internal and external partners to develop several annual events. The **Celebration of Women in Medicine and Science** event grew from one speaker to a month-long event which includes social media posts highlighting women in leadership, and a three-day event which incorporates a keynote and closing speaker, a student panel, an allyship panel, and rotating roundtables which allow participants to engage with several table topics. The **Conference on Teaching and Learning** is a capstone event which grew out of a program which allowed students to showcase their quality improvement projects, and it is now a regional conference on medical education, and the School of Medicine hosts the conference in partnership with the University of California medical schools in the Southern California region.

Office of Academic Affairs

Iryna Ethell, PhD, Professor of Biomedical Sciences, was appointed Associate Dean for Academic Affairs, and under her leadership, the SOM expanded the OAA staffing, hosted faculty development workshops, improved the SOM faculty appointments, merits and promotion processes, and partnered with multiple stakeholders to promote diverse and inclusive recruitments.

The SOM invested in electronic systems which allowed the migration from paper use throughout the processes related to faculty appointments, merits and promotions. New standard operating procedures were developed for appointments and advancements of clinical faculty which ensured timely actions on recruitments, merits and promotions. Modifications to the on-line portal were implemented to ensure consistency, transparency and timely completion of faculty appointments and annual renewals.

Faculty development workshops were regularly held to promote professional development, encourage innovation in teaching and research, and build teaching skills and academic success through diversity and inclusion. Examples of these workshops include: Navigating the Merit and Promotion Process, Critical Practices for Leading a Team, and Culture in Academic Medicine. Over the past year, nearly 275 faculty from the Biomedical Sciences and Clinical Sciences Divisions, 64 staff and 25 residents have attended these workshops. The OAA established the **New Faculty Orientation** to ensure a timely and smooth transition of new faculty. The half-day event orients new faculty to the SOM and provides them the opportunity to meet current SOM leaders, faculty, and staff. This orientation includes SOM community-based faculty physicians and promotes positive networking. A **Junior Faculty Development workshop series** was established to facilitate mentoring and training of Assistant Professors in the SOM. Faculty from the Clinical Sciences and Biomedical Sciences have made a commitment to engage in this series.

The SOM established a **Faculty Mentoring Institute** which includes 40 senior faculty who are committed to serve as mentors. The institute provides a network of mentors, resources, and opportunities for junior faculty. The newly developed **Faculty Mentoring Program** provides two senior mentors for new faculty, junior faculty as well as interested mid-career faculty. The mentees meet regularly with their mentors, and attend ongoing seminars and networking events, and learn how to navigate systems within the University.

Expand Staff Development Programs within SOM

UCR has a robust staff development program which is administered through the Human Resources Employee and Organizational Development (EOD) Program. The EOD program provides several opportunities for staff development through classes and workshops, career programs, management development, UC-system-wide programs, and certificate programs. Staff in the SOM are encouraged to participate in EOD programs, as well as programming in the SOM facilitated by the Office of Faculty Development and the Office of Academic Affairs. **During FY21, more than 64 SOM staff participated in staff development programs.**

I have **allocated \$1,200 annually for each staff member to engage in professional development activities** not available through the SOM or UCR central campus. A significant number of staff members have utilized this opportunity to participate in certificate programs and attend regional/national workshops/conferences. In 2021, I appointed a **Staff Professional Development Taskforce led by Ms. Sylvia Vasquez**, Director of SOM Human Resources, to review the staff development offerings on campus, and identify gaps in staff professional development to inform the establishment of the **SOM Staff Professional Development Program in 2022.**

Goal: Elevate and Expand the Medical Education and Graduate Programs

Expand and Enhance Undergraduate Medical Education (UME)

The UME program has grown substantially since the enrollment of the Inaugural class of 50 students in 2013. Under the leadership of then-Senior Associate Dean for Medical Education, Paul Lyons, MD, the medical education administrative organizational structure was “flat” with multiple directors reporting directly to the Senior Associate Dean for Medical Education. Having held the role of Senior Associate Dean for Medical Education at my previous institution, I worked with the education leaders to **restructure the medical education administrative structure**. I hired **two new Associate Deans, Chris Lytle, PhD, Associate Dean for Pre-clerkship Medical Education, and Andrew Alexander, MD, Associate Dean for Clinical Medicine** for oversight of Pre-clerkship Years (Year 1 and Year 2) and Clerkship Years (Years 3-4).

In FY17, under the leadership of Dr. Lytle, the SOM completed a **comprehensive review** of the pre-clerkship years of the medical education curriculum. The medical education program lacked a platform to house assessments and evaluations of students to allow data-driven decision making to improve student success and discover potential gaps in the curriculum. I hired Kendrick Davis, PhD, as **Associate Dean for Assessment and Evaluation** and created the **Office of Assessment and Evaluation**. During the same year, I provided funds to create an Interactive Classroom with state-of-the-art technology.

In FY18, the medical educators completed a **comprehensive curriculum review of all 4-years** of the medical education curriculum and established a mentoring and career planning program for medical educators to ensure succession planning. The SOM increased the number of medical students admitted to 66 which required additional clinical sites for students’ clinical rotations. We **expanded the SOM clinical education affiliations** to include a partnership with Eisenhower Medical Center in the Coachella Valley which complements our long-standing partnerships with Riverside University Health System (RUHS), Riverside Community Hospital (RCH) and St. Bernardine Medical Center where medical students complete their clinical rotations.

With the transition of key medical education leadership, I hired **Brigham Willis, MD Senior Associate Dean for Medical Education, Byron Ford, PhD, Associate Dean for Pre-clerkship, and Pablo Joo, MD, Associate Dean for Clinical Medicine**. Under the leadership of Dr. Brig Willis, the SOM **restructured the final two years of medical school curriculum**, improving continuity, student experience, and faculty engagement. We have **added clinical sites** across our community and expanded access to current sites. The use of active learning modalities is promoted across the curriculum, and in the faculty development unit **staff has been doubled** to facilitate this transition and create high-quality educational sessions for students.

To assure the quality of these programs, **Elizabeth Morrison-Banks, MD, was hired as Associate Dean for Medical Education Quality and Integration**. Under the leadership of Dr. Morrison-Banks, the SOM **created an Office of Medical Education Quality**, charged with monitoring quality outcomes across the curriculum. An initial success of this new focus on quality was a targeted intervention to improve and completely restructure the third-year

curriculum. We continue to engage in curricula innovation, and in the wake of the George Floyd murder and the racial reckoning in the country, it was imperative that issues of racism and social justice were addressed more directly in the medical school curriculum. Medical educators, students and staff overwhelmingly supported the **creation of a curricular thread focused on health equity, social justice, and anti-racism (HESJAR)**. Other curricula threads include one focused on **health systems science (HSS)**, intending to address inequities and disparities in the provision of care; an **emphasis on medical Spanish (Hablamos)**, allowing students to complete an immersive, four-year experience in medical Spanish; a **new emphasis focused on community health**, in partnership with state and community organizations; **expansion of our Longitudinal Ambulatory Care Experience (LACE)**, placing students in primary care settings early in their 1st year of medical school; a focused **thread on the provision of ultrasound expertise** in clinical care; and planned further expansions in the areas of street medicine, integrative health, and more.

Rebeca Gavan, MD, was hired as Director of Case-Based Learning and the Standardized Patient Program to provide oversight and make improvements in clinical skills education. She has reorganized the curriculum for clinical skills and reformatted the Observed Structured Clinical Examinations (OSCEs), making them of higher quality and including improved narrative feedback. She led the initiative for **UCR SOM to join the California Consortium for the Assessment of Clinical Competence**, allowing us to benchmark our students' clinical skills across the multiple member schools.

Work is underway to **launch two key programs** that will serve to enhance the UCR SOM as a leader in medical education. The first is a **Master's in Medical Education Program**, which will provide advanced training in educational pedagogy, methods and administration required for success in higher level educational administration. With the proliferation of medical schools in California and Southern California in particular, there is an unmet need for programs providing education on how to be an excellent medical educator. This program will fulfill this need and establish UCR SOM as a leader in the field. Recently, the SOM was awarded funding from the State of California to **create a new Program in Medical Education (PRIME)**, focused on African, Black, and Caribbean medical students. UCR SOM joins the other five University of California medical schools in hosting a PRIME program which combines targeted recruitment with comprehensive engagement to prepare students to address the needs of special populations.

With these improvements and new innovations, the UME program of the UCR SOM is performing at the highest level with a specific focus to serve our mission of training exemplary, empathic, and humanistic physicians who will serve the Inland Empire and California.

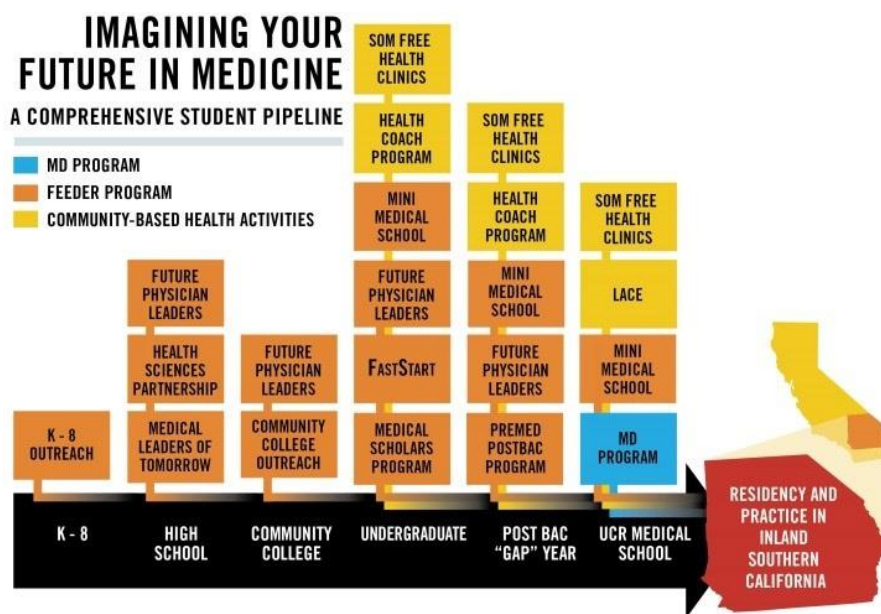
Promote Student Success

Emma Simmons, MD, Senior Associate Dean for Student Affairs, works in partnership with Dr. Willis to create an environment for UCR SOM medical students to thrive educationally, socially, and psychologically during their medical education training. In addition to the initiatives described below, the two senior associate deans meet regularly with the medical student

executive council to discuss issues of concern, whether they be academic, student wellness-related, financial aid, or social.

SOM Pathway (Pipeline) Programs

Achieving the mission of the School of Medicine requires “building and nurturing” a continuum of student enrichment activities and academic support programs that together comprise a pathway leading up to and into medical school, then extending into residency training. Under the leadership of Teresa Cofield, the SOM has both “feeder” programs designed to inform, mentor and support prospective future physicians in continuing their education, and more focused programs that have proven to be highly successful at preparing prospective medical school applicants for admission into medical school. **Many students enrolled in UCR School of Medicine have participated in the SOM Pathway Programs.** Our focus is on students who are socio-economically disadvantaged, from medically-underserved communities, who attended low performing high schools, were raised by single parents, speak English as a second language, and/or underrepresented in medicine (URM). **In FY21, the School served over 1,900 students of all ages through these pathway programs.**



The **Office of Academic Success** within the student affairs unit, has a full-time director of academic success, Christina Granillo, PhD, and a full-time academic specialist hired in March 2021. Medical students can self-identify for support and faculty members can make referrals for service. The Office of Academic Success offers a variety of services including individual counseling, focusing on personalized guidance to enhance study and learning skills, organizational skills, and time management. Specific programs include:

- **Supplemental Instructional Program (SIP)**, utilizing peer advisors providing one-on-one tutoring, group high yield/final exam reviews, and weekly virtual drop in tutoring

sessions. Anatomy laboratory tutoring includes small group anatomy tutoring (one tutor to four students), mock practicals, and tutor support during dissections, as well as open laboratory tutoring sessions.

- **Step 1 Skills Coaching Program**, designed as an early intervention for students at risk for failing the United State Medical Licensing Examination® (USMLE) Step 1 examination. This program is available to all second-year medical students who take, and must pass, Step 1 prior to beginning their clinical clerkships in year 3. Students undergo an initial assessment by the director of academic success reviewing their academic performance in year 1, identifying goals for year 2 and planning for the Step 1 examination. At-risk students are required to meet with their coach, a third- or fourth-year medical student weekly throughout the year. All other students are asked to meet with their coach weekly in the first block of second year, afterward they can modify the frequency of contact. The coaches receive training in which they develop teaching skills for working with adult learners, while also learning about inclusive teaching to minimize personal biases, building relationships with learners, and supporting the program’s learning objectives.

Our National Board (USMLE) pass rates are exemplary, boasting a 96.2% first-attempt pass rate (national 96%), and in 2020 achieving a 100% first-attempt pass rate. Our pass rates on Step 2 are also equivalent to the national average, as are our average scores on those exams.

The **Careers in Medicine program**, offered by the student affairs unit, provides career development and residency preparation support services, starting at orientation prior to the beginning of year 1 and using the AAMC Careers in Medicine resources. During each academic year, the SOM organizes many events, such as specialty round tables and guest speakers including clinical department chairs, residency program directors, and other clinical faculty speakers. Medical school alumni and resident physicians also serve as speakers. Many speakers in the Careers in Medicine programs serve as formal career advisors for individual medical students, and some continue as informal mentors afterward. Nearly 30 full-time and volunteer faculty members currently serve as Careers in Medicine advisors.

Career Workshops offered by the Office of Student Affairs include Roadmap to Residency, How to Finalize Your Medical Specialty, Electronic Residency Application Service® (ERAS) Workshop, Requesting Letters of Recommendation, Residency CV Workshop, Personal Statement Workshop, Rank order list workshop, Supplemental Offer and Acceptance Program (SOAP) Q&A, and “Speed mentoring” workshop with community-based physician faculty members.

In 2020-21, the Office of Student Affairs responded to student feedback by piloting two new series:

- **“Meet the Chair,”** piloted with the department of internal medicine, family medicine, and surgery, provided students with direct interaction with the department chairs. Chairs chose to invite department faculty as well for conversations on topics such as mentoring opportunities, research, subspecialty pathways, leadership, and academic

medicine pathways, as well as general information about the specialty their department represents.

- **“Alumni Connect”** sessions invite medical students to engage in casual conversations with SOM graduates currently in residency training or who have recently transitioned into practice. Alumni shared with current medical students their experience as a UCR medical students, their current residency training or practice, and their experience with preparing for the residency application and interview process. Medical students benefited from the mentoring from alumni, perspectives on selecting a medical specialty, and the alumni perspective on competitive eligibility for residency training.

The SOM has exceeded the national average in successfully matching our students to high quality residency programs at rates that rival or exceed national averages. The Residency MATCH rate for the Inaugural class was 100%, and over the last four years the MATCH rate ranged from 96% to 98%.

Medical student support and wellness programs have been expanded and strengthened under my tenure as dean of the School of Medicine. Amanda Smith, LCSW, and the UCR Counseling and Psychological Services (CAPS) jointly coordinate the system for providing comprehensive mental health services to medical students. Ms. Smith, director of medical student support and wellness in the SOM, is responsible for the school’s well-being programs and for connecting medical students with mental health services provided by the campus. Under her leadership, the SOM significantly expanded programs and services. In 2020-21, the Support and Wellness Program established annual required individual meetings between students in years 1-3 and the director to discuss their personal well-being plans and goals. Students may also opt to schedule more than one such meeting each academic year. Year 4 students are offered office hours (virtual during the pandemic) to discuss well-being issues.

With **grant funding from the California Wellness Foundation**, a wellness toolkit was provided to each medical student in early 2021. The kits contained items to help students engage on personal well-being and planning, reminding students of the eight dimensions of wellness – emotional, social, occupational, spiritual, environmental, financial, physical, and intellectual. Toolkit items included exercise bands, a gratitude journal, and message balls, among other items. Finally, at the suggestions of medical students, the SOM in 2020-21 instituted four **protected “wellness days” each year** that students may utilize for any personal matter. These days are in addition to the regular student breaks during the academic year.

Office of Financial Aid

The Office of Student Financial Aid under the leadership of Kathy Buckner worked to secure scholarships and interest-free loans for our medical students. The **Mission Award Program** which pays the students’ tuition and fees for either two or four years and students in turn commit to returning to practice in the Inland Empire after completing residency training has grown significantly over the past 5-years. **More than 25% of students in each class over the past 5-years received a Mission Award.** To date, we have **awarded 134 students with Mission**

Awards which translates into **over \$14 million** for the program to support students. More than 20 new scholarships were established since 2016. **The SOM was able to secure the Loan for Disadvantaged Students (LDS)**, an interest-free loan through residency/fellowship training which may be forgiven if physician practices in a primary care specialty. **SOM students have received more than \$11 million from the LDS program.** UCR School of Medicine ranks well below the national average for medical student debt. **The SOM Class of 2020 was in the top 5% for lowest medical school debt level in the United States.**

Grow Graduate Medical Education (GME) Training Programs

There is a paucity of primary care physicians and specialists in the Inland Empire compared to urban and suburban areas of California. The California Future Health Care Workforce estimates that there are 35 primary care physicians per 100,000 population in the Inland Empire, short of the recommended 60-80 primary care physicians per 100,000 population. Consistent with UCR SOM mission- to train a diverse physician workforce to serve the population of the Inland Empire, the SOM has prioritized growing graduate medical education training programs to directly impact the physician workforce in the Inland Empire. Data from the Association of American Medical Colleges (AAMC) reveal that physicians are significantly more likely to practice in the area where they are trained.

When I joined UCR SOM in May 2016, the Graduate Medical Education (GME) program consisted of three residency programs, internal medicine, family medicine and psychiatry. There has been a **significant growth in the GME programs over the past five years.** Under the leadership, **Rajesh Gulati, MD, Associate Dean for GME and Designated Institutional Officer,** the SOM has successfully initiated seven additional residency and fellowship programs, **growing from 3 residency programs to 10 residency/fellowship programs.** All of the programs have either achieved initial accreditation or continued accreditation. The following programs have been started since I joined as Dean of the medical school ---Cardiology Fellowship at St. Bernardine Medical Center (SBMC), Gastroenterology fellowship at SBMC, Child and Adolescent Psychiatry Fellowship at Riverside University Health System (RUHS), Interventional Cardiology Fellowship at SBMC, Addiction Medicine Fellowship at Eisenhower Medical Center, Internal Medicine Residency and Critical Care Medicine Fellowship at SBMC.

The number of **residents and fellows have more than doubled over the past 5-year**—a growth from **52 residents to 130 residents/fellows** today. The SOM has engaged many clinical affiliates in educating our residents and fellows and currently they rotate at 32 different sites including SOM's major hospital affiliations such as St. Bernardine Medical Center, Riverside University Health System, Eisenhower Medical Center, Kaiser-Riverside, VA Loma Linda and VA Long Beach. The UCR residents/fellows also participate in the training of medical students, providing crucial modeling for the next step in training for our MD graduates. The SOM has been **successful in retaining our residency and fellowship graduates** in the Inland Empire, and of the 120 graduates, **56 or 47% are practicing medicine in the Inland Empire,** addressing the dire physician workforce needs in the Inland Empire.

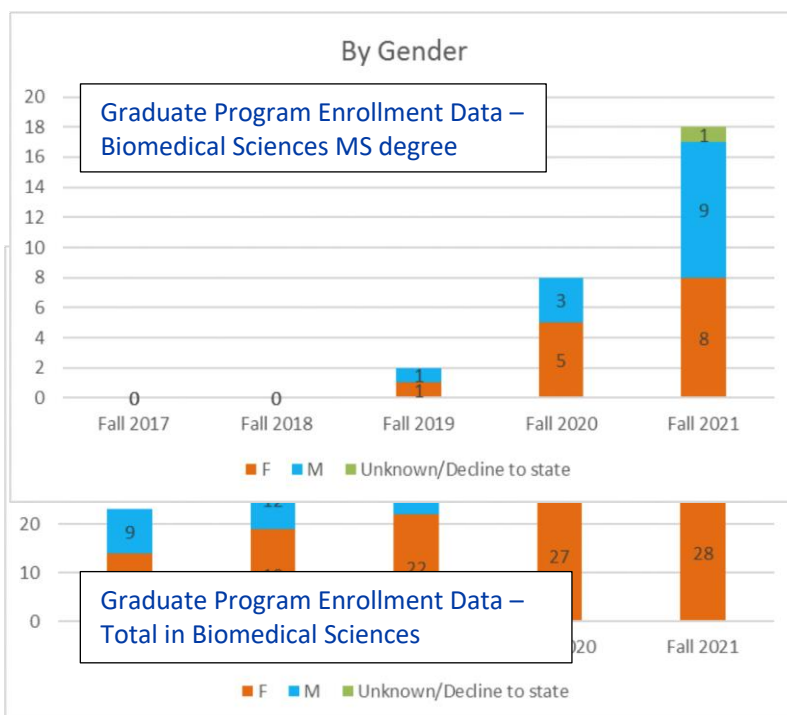
The Office of GME and the Graduate Medical Education Committee have developed key programs to enhance the residents/fellows experience, foster their well-being and encourage engagement in scholarly activities. The GME Health Disparities Taskforce developed a **Health Disparities Lecture Series** to augment residents/fellows' education and clinical training in the assessment and evaluation of social determinants of health, and provision of evidenced-based equitable health care. A **Resident/Fellow Well-Being Program** was established to promote engagement in activities to alleviate stress and address issues related to physician burn-out.

Recently, I established the **Dean's GME Research Innovation Award** to encourage residents/fellows to explore clinical research ideas and partnerships for conducting research with SOM faculty. These \$25,000 research awards aid with conducting pilot studies and publishing manuscripts.

Support and Expand the Graduate Program in Biomedical Sciences

The Graduate Program in Biomedical Sciences is an *interdepartmental* and interdisciplinary translational research program that integrates the medical school curriculum with basic science training. The program offers both a PhD and a MS degree program of study and recently had its 10-year review. The goal of the PhD degree program is to train scientists to develop expertise in a specific area of research specialization while acquiring enough general knowledge in the basic medical sciences to apply their research expertise to translational efforts in unraveling the molecular basis of human disease. By embedding graduate students in the first-year medical curriculum, they are trained to understand the culture of medicine, allowing them to bridge the wide gulfs that exist between clinical medicine and basic science research. **It is noteworthy that all of the PhD graduates have remained in science related fields ranging from research, to clinical liaisons to advocacy.**

A major change in the Graduate Program was the decision to clarify the mission and **relaunch the master's degree program**. The Biomedical Sciences MS degree mission has three-objectives: (1) to serve as a discernment and preparation program for students deciding whether their next steps should be in medicine, research or other fields, (2) to provide a dual degree option for M.D. students who want to take a year to conduct research in a specialized area (M.D.-M.S.), and (3) as a terminal degree. Students graduating with a MS degree have gone onto diverse outcomes such as law school, medical school, graduate

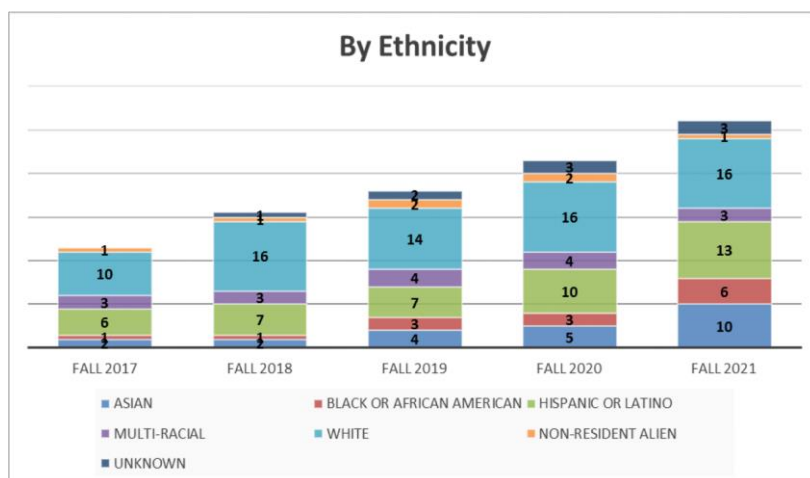


school, and advocacy. Furthermore, as part of SOM's review of its practices, the decision has been made to **integrate its post-baccalaureate program (currently 12 students a year) into the Biomedical Sciences MS degree program beginning Fall 2021**. Integration of these two programs will help the MS program to better align as a post-graduate discernment and preparation pipeline for MD and PhD programs supporting a diverse student cohort.

Furthermore, by integrating the post-baccalaureate program into a degree granting program, students can acquire a degree enabling employment in the Southern California biotechnology workplace at higher salaries than with a BA/BS degree.

The Biomedical Sciences Division **received a highly positive 10-year review report by the external review team**. The external review team noted that the program curriculum provides a valuable **combination of medical school training in the first year and research-focused coursework in the second**. They repetitively stressed its uniqueness as a program in their report, including the statement in the executive summary that the **training is potentially unique across all medical schools in the United States**. The external reviewers also noted that the students and faculty (both Division and non-SOM) were enthusiastic about their program and dedicated to it. Program leadership was energetic and engaged. The success of the program is noted by the increase in applicants and ability to enroll students highly valued by faculty in multiple colleges/departments, with **all students graduating with publications**.

Diversity of both the graduate students and the affiliated faculty is a significant strength and a priority of the program. The Division notes that with the growth of the program, there has been an increase in diversity. While the population of students identifying as white has grown by 60% since 2017, **the percentage of those identifying as Black/African-American or Hispanic/Latino has grown two-fold!**



Supporting the Biomedical Sciences graduate program has been one of my educational priorities. The Reviewers noted in the prior 5-year review report that **“the accelerating success of this graduate program is directly due to the *substantial and stable commitment of funding for the graduate program by Dean Deas.*”** Examples of my support of the biomedical sciences graduate program include: Medical Education TA-ships, Merit Fellowships, Program Staff FTEs, conference scholarships, as well as an additional 50% first year fellowship funds above that received from Grad Division. Many features of the program lauded by the external reviewers of the graduate program have also been lauded by reviewers of NIH fellowship study sections. As a result, in the last two years, the Division went **from zero successful NIH F31 applications to three funded NIH F31 fellowship applications for our Biomedical Sciences PhD students!**

Goal: Develop a platform for expanded biomedical, translational, clinical and population-based research programs to advance knowledge in the medical sciences, and to foster research productivity

Working collaboratively with **David Lo, PhD, Senior Associate Dean for Research in the School of Medicine**, the SOM executed the goals and objectives for research in the School of Medicine's strategic plan. To foster research productivity, I established several awards to incentivize faculty to develop proposals and preliminary data for full NIH or similar grant applications. The **Dean's Biomedical Sciences Seed Grant** provides up to \$25,000 to faculty engaging in collaborative projects to gather pilot data for larger grants. The **Dean's Innovation Research Award** provides up to \$10,000 to SOM faculty, staff, and students/residents working with a faculty mentor to explore innovative ideas in biomedical sciences, clinical, and translational medicine. The **Dean's Multi-Principal Investigator Collaboration Research Award** provides up to \$100,000 in funding to foster research collaboration between SOM Principal Investigators with faculty in other UCR Schools/Colleges to plan large scale NIH proposal for future submission. All proposals are submitted in a format similar to that of a grant application and proposals are reviewed by an ad hoc committee chaired by Dr. Lo.

School of Medicine Research thrived over the past 5-year under the leadership of Drs. David Lo and Monica Carson, PhD, Chair of the Division of Biomedical Sciences. Highlights of the SOM research accomplishments are illustrated below.

SOM Research Accomplishments

The School of Medicine activities in research have expanded greatly during the period from 2017 to present. While the growth in the Division of Biomedical Sciences has driven a parallel growth in graduate training and research productivity, it has also been accompanied by an especially rapid expansion in extramural research funding, most notably from the NIH. To support this rapid research expansion, the Research Instrumentation Core has also undergone major expansion in acquisition of state-of-the-art research instrumentation. These new instruments are specialized for research in translational research models of clinical disease and therapeutics, well-suited for the needs of a rapidly growing research-based medical school. Interestingly, these expanded research capabilities have also turned out to be in high demand among researchers across campus academic units, especially in the College of Natural and Agricultural Sciences (CNAS), Bourns College of Engineering (BCOE), and the College of Humanities and Social Sciences (CHASS).

Extramural funding

The pace of growth in extramural funding has been strong over the past few years. Contract and grant total funds to SOM in FY17 were about \$8.6 million (all sources), growing to over \$13.8 million in FY20, about 60% growth in only three years. (Figure 1; FY21 not yet compiled)

Directs and Indirects by Fiscal Year FY17 – FY20

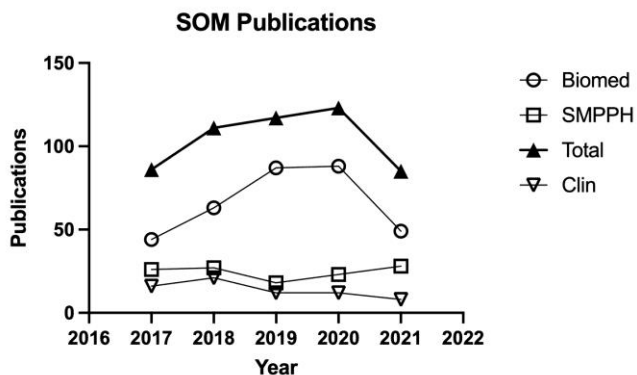


The growth in our research faculty has also led to ambitious grant applications with successful awards to SOM faculty, as well as their participation in collaborative proposals submitted from across campus. One recent broadly collaborative grant award from NIH was the **R25 Bridges to Baccalaureate program with UCR and Riverside Community College**, led by Byron Ford, PhD, of Biomedical Sciences. Another particularly notable grant award was the **U54 Center for Health Disparities Research (HDR)** led by Dr. Lo and Juliet McMullin, PhD, Professor of Anthropology in CHASS, a nearly \$16 million award (highest NIH award ever in UCR history) over five years that also included collaborators in CHASS and the School of Public Policy (SPP). Another unique award reflecting our increasing ambitions, was the approval of a congressional earmark grant of \$500,000 to the HDR center through Congressman Vargas' CA-51st district.

The ambitions of the SOM are reflected in recent large grant submissions, including a U54 application from the Department of Social Medicine, Population and Public Health (SMPPH) led by Mark Wolfson, PhD, and a \$10 million application from SMPPH and Clinical Sciences led by Dr. Wolfson and Ramdas Pai, MD, to the American Rescue Plan to support Public Health Informatics Workforce Development. A \$15 million NIH proposal for Faculty Institutional Recruitment for Sustainable Transformation (FIRST) led by Drs. Lo, Carson and McMullin would support hiring of at least 10 new Under-Represented Minority faculty in basic and clinical sciences, to be submitted this Fall. Additional large grant submissions with the critical participation of SOM biomed faculty in leadership roles include a P30 center grant on Environmental Toxicology, a T32 training grant application on Systems Biology, and another T32 proposal in development in Neuroscience.

Research Productivity and Publications

The parallel growth in the Biomedical Sciences program and Biomed faculty have also resulted in rapid growth in research productivity as reflected in the publications from the School of Medicine (**Figure 2; 2021 in progress**). Additional productivity has also come from other units such as the SMPPH and Division of Clinical Sciences.



Research Instrumentation Core and Services

The Research Instrumentation Core was built on existing histology equipment in Biomed, but its establishment as an effective Research Instrumentation Core began with the NIH award of an S10 Shared Instrumentation Grant to fund the acquisition of a Nikon A1R+ multiphoton microscope, for intravital imaging, installed in 2016. Since my arrival, the core grew rapidly, with the acquisition of the Astrios high Speed Cell Sorter, an instrument that actually has had more bookings from CNAS and BCOE users combined than internal SOM users. Following closely were the nanoString nCounter, and the Novocyt Flow Cytometer, both in great demand by researchers across campus, and most recently a nanoString GeoMX, and FlexiVent, with both in the process of training new users. It is notable that while the Astrios was acquired by contributions from the deans of SOM (60%), CNAS (30%), and BCOE (10%), the Nikon was acquired from an NIH instrument grant, and all the remaining instruments were also acquired through NIH grant funds, so this remarkable growth (over \$2M instrument costs covered by NIH funds) was possible without requiring any UCR institutional resources.

BSL-3 High Containment Lab

The recent SARS-CoV-2 pandemic is a reminder that cutting-edge research will require advanced research facilities in medical microbiology, and the BSL-3 High Containment Lab in the SOM Research Building illustrates how UCR and the SOM will remain competitive in advanced biomedical research. The facility became operational in mid-2021, and researchers in SOM and CNAS are now using its advanced capabilities to study highly pathogenic microbial agents, including HIV, highly pathogenic influenza, SARS-Cov-2, and other agents.

Research Centers and Activities

The School of Medicine hosts several Research Centers with broad membership and impact across the campus, including the (1) **Center for Healthy Communities** in SMPPH, developing important projects on health in our surrounding community, (2) the **Center for Molecular and Translational Medicine**, which helps faculty take biomedical discoveries to develop new clinical therapeutics [The Center's activities were an integral part of a UCOP grant application (the AB2664) that received \$2.2 million funding in 2017. Part of these funds have been used to support proof-of-concept translational studies by UCR investigators at the Center, and to equip the MRB1 incubator space. The incubator space was launched at the end 2019.], (3) the **Center for Glial-Neuronal Interactions**, which is the central gathering place for neuroscientists across campus, (4) the **BREATHE center (Bridging Regional Ecology, Aerosolized Toxins, and Health**

Effects), gathering researchers from humanities and social sciences, engineering, ecological studies, and biomedical sciences to study air quality and health impacts, areas of particular relevance to the newly established CARB testing campus at UCR, and (5) the **NIH-funded Center for Health Disparities Research**, training and supporting new researchers in health disparities and community engagement work. These centers all hold regular colloquia, workshops and research symposia, and in many cases provide seed grants and funding for pilot projects to researchers across all UCR colleges and schools.

Ancillary Benefits to Campus and Community

The School of Medicine is a hub of intense research activity, with particular strengths in biomedical research and population health/community-based research. The research in biomedical sciences and our prominent research faculty have established an international reputation that has made UCR SOM a powerful draw for top applicants to our graduate program and new faculty positions. For example, in the past 10 or so years, with only one exception, all of our Biomedical Sciences faculty hires brought existing NIH funding with them to UCR. The exciting and innovative work in SMPPH and its Center for Healthy Communities, and the Center for Health Disparities Research, have established the UCR SOM as a national leader in population health and health disparities research.

Importantly, the strengths in these programs have had disproportionate and positive impact across the campus and local community relative to the size of SOM. **We have been awarded multiple extramural grants involving SOM faculty and collaborators in CHASS, SPP, CNAS, BCOE, and GSOE.** Our Biomedical Sciences faculty are training students from PhD graduate programs across campus, including CMDDB, Microbiology, Neuroscience, Chemical and Environmental Engineering, and Bioengineering, nearly all relying on the fact that our faculty support these students with NIH grant funds. **Our Research Instrumentation Core provides advanced research instrumentation capabilities and services to researchers in CNAS, CHASS, and BCOE, with minimal recharge costs.** Finally, the extensive community engagement activities in the CHC and HDR centers as well as our outpatient clinical centers, have fundamentally changed the relationship between UCR and the surrounding community, building a network of community leaders who know they have trusted partners in the university. These relationships have positioned the university to be a national model for community-based participatory research, showing how reliance on community partnerships can fundamentally shape research priorities in the academy.

Goal: Support and Grow the Biomedical Sciences Division

Overview

The Division of Biomedical Sciences, under the leadership of Monica Carson, PhD, has grown substantially in the scope, prominence and impact of its research, service and teaching missions. The Division now plays major roles on campus providing prominent research and education opportunities via high impact symposia, poster sessions and novel training and graduate student research programs benefitting faculty, staff, undergraduate and graduate students in BCOE, CHASS, CNAS, GSOE and SPP as well as SOM and our regional communities. Benefitting the membership of all of these colleges/schools, the Division has continued to host two research symposia, the Southern California Symposium on Glial-Neuronal Interactions in Health and Disease and the Southern California Eukaryotic Symposium (SCEP); has **launched two new centers (BREATHE, MolMed), and leads the HDR@UCR faculty & trainee research development.** Faculty within the Division are

highly successful in the research mission.

These activities are lauded by campus members and study section reviewers critiquing the research environments.

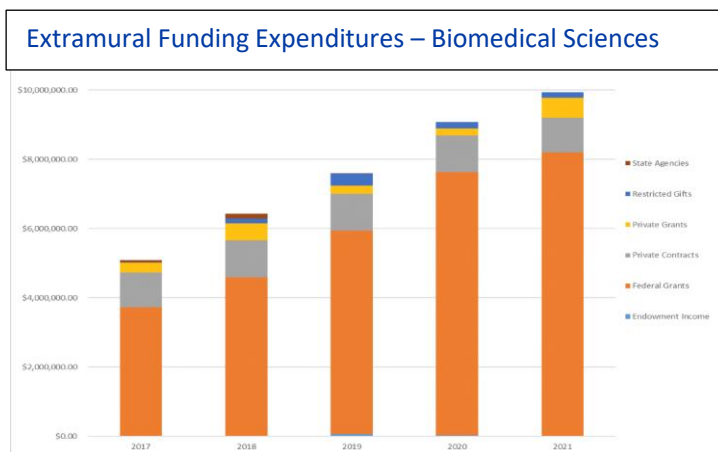
Indeed, with the exception of one of the most recently hired early stage Assistant Professor, **all of the Division faculty are funded by external grant sources.** Even the recently hired Assistant Professor has already successfully competed for small UCR research awards, and submitted an initial NIH grant application. In addition, **one of the**

Division's post-doctoral fellows was our first to receive a prestigious NIH K99-ROO grant for research performed in the division and continuing with the support of the Division.

It is critical to note that while some NIH-funded faculty find that research progress and competition for grants is more effectively pursued with post-docs and other trained staff, Division Faculty are committed to supporting graduate education. **The 21 Division Faculty provide research opportunities and GSR support from their grants for graduate students in multiple campus interdepartmental and non-SOM departmental graduate programs.**

Furthermore, all the Division-administered centers intentionally create roles in their centers for graduate and undergraduate students to include and mentor them in their research and service domains.

With this funding success and the increased impact and visibility of the Division research programs and research centers, the Division has grown to nearly 30 personnel with multiple education and career tracks rarely or never before used in the Division. The success of the Division faculty and trainees are evident by their **publications being chosen as featured articles in prominent research journals, with invitation to prominent leadership roles in Societies, Advisory Boards and editorials boards for journals in the top quartile (and even top 10%) of**



their research fields. The Division faculty have been called upon within UCR but also in public forums (news media and legislatures) to provide information on multiple issues affecting health and therapies. The Division has also renewed its commitment to having an active anti-racist agenda in all aspects of its research, teaching and service missions. **In 2020, the Division launched its “Call to Action Anti-Racism Taskforce” Committee (CTAC),** and in less than a year this has led to multiple positive outcomes for curriculum and division operations but also included the generation of a climate survey to be administered each year to guide efforts in fostering a community of inclusive excellence and to assess success (or failures) in doing so. Lastly, disproportionate for the size of the Division (21 faculty), the **Division faculty contribute in multiple committee and leadership roles to committees and initiatives contributing to the research infrastructure of UCR (examples, IACUC, IBC, MRB administration).** The Division faculty and the Division have also made meaningful contributions to the undergraduate mission with the successful competition for the **“Bridges to the Baccalaureate” grant led by Dr. Ford** with administrative staff support and teaching load relief for Dr. Ford provided by the Division.

Create SOM ecosystem which fosters cross-collaboration and support across missions and departments/units

Over the past 5-years, I have worked diligently to foster an ecosystem in the SOM which promotes collaboration and support across missions, as well as departments and units. While all units and departments have benefitted from this ecosystem, the Division of Biomedical Sciences has praised this approach and highlighted its benefit to the Division. This has also led to the multiple units contributing resources and shared oversight to advance new and exciting opportunities for our students, staff, and faculty. A notable example is the **launch of Clinical and Technology Graduate Student Researcher (GSR) programs** which was praised by the External Review Committee that recently reviewed the Graduate Program in Biomedical Sciences. The Clinical GSR not only provides support for SOM’s clinical coordinator and clinical studies, it also provides a truly unique year-long paid GSR (25% effort), highly valued by Biomedical Science Graduate Students that is compatible with conducting their ongoing dissertation research. This **program is jointly funded and administered by the Division of Biomedical Sciences, SOM Council of Chairs and SOM Senior Associate Dean (SAD) Research Unit.** Similarly, the **Technology GSR** augments support for the SOM research cores that are challenging to use for infrequent users of the technology. Biomedical Science Program GSRs are provided with yearlong internships during which they become leaders of protocol development, experimental design, experiment implementation and data analysis for non-expert users of SOM core facilities (25% paid GSR effort). **The Technology GSR program is funded by the Division of Biomedical Sciences, and administered by SOM SAD Research Unit.**

The Biomedical Sciences Division has embraced and implemented the SOM’s organization and communication strategy. Within the last three years and with progressively increasing acceleration, the division has ensured that leadership and membership of Division decision making committees, initiatives and projects are populated not only by faculty but also BMSC GSA (also inclusive of non-BMSC graduate students in Division labs), the post-doctoral and non-senate academic appointees and by staff (technical and non-technical).

Growth and Support of the Faculty

The research success of the Division aligns with the multiple commitments I made to the Division and to the SOM research infrastructure. This increased prominence of the faculty research along with the collegial, diverse and cross supportive community fostered in the SOM has helped the Division compete against offers of higher-value in initial compensation/start-up packages when recruiting and retaining faculty. In addition, the contributions to start-up and retention funds have been focused on strengthening Division, SOM and campus resources. Notable examples include **\$300,000 matching funds for imaging equipment in the MRB vivarium imaging core facility, \$100,000 in support for Centers, and \$100,000 support for improvements to MRB infrastructure.** During this period, **the Division has successfully recruited six new faculty, supported the promotion of six faculty (three to full professor) and the advancement of one faculty to Step VI, as well as the retention of two well-funded,** high impact faculty members being recruited with lucrative offers by a prominent private university and a prominent research-oriented biotechnology firm.

The Division experienced a large wave of retirements of senior faculty who had deferred retirement to aid in the launch and full accreditation of SOM, with three of these retirements occurring in the last three years. The Division has been fortunate to recruit faculty who specifically meet the health- and translational-focused research mission of the Division. **The faculty recruited have also benefitted campus initiatives, contributing to publications, T32, P30 and multi-PI grant applications with faculty colleagues in CNAS and BCOE.**

Summaries of new faculty

Qi Chen, PhD was recruited as a mid-stage Assistant Professor. His research focus is RNA biology and epigenetics. Epigenetics refers to heritable changes in gene expression caused by mechanisms other than changes to the nucleotide sequence of DNA. Dr. Chen is one of a small cohort of innovators defining the field of RNA-based (NOT DNA-based) epigenetic modifications triggered by the environment that are also heritable through the father. Dr. Chen is well funded with **multiple NIH grant awards.** Dr. Chen received the **Fields Medal in 2019 for being in the top 1% of cited researchers in his field.** Since arriving at UCR, he has been highly active in multiple graduate programs. His recruitment is one of the early major recruits that is supporting the launch of the Division's Center for RNA Biology and Medicine.

Adam Godzik, PhD (full Professor) was hired 2018. His research focus blends development of innovative and high impact computational tools with applications to basic research problems of protein structure, folding and flexibility. Dr. Godzik also applies his research on methodologies to the analysis of "big data" genomic, protein domain and clinical data sets to identify evolution of disease-causing mutations especially in progression of cancer malignancy, pathogen evasion of host immune defense, evaluation of therapeutic efficacy and disease risk categories. He is active on multiple campus-wide and system senate committees and is part of the campus' "Big Data" research community. **He has an H-index of 92, over 42,000 citations of his research, is funded by NIH and serves on NIH advisory groups counseling the nation of emerging COVID-19 variants.**

Erica Heinrich, PhD, (Assistant Professor) was hired in 2018. Her research focuses on human pulmonary physiology and disease. Specifically, she studies the effect of altitude, genetics, inflammation, and exercise on pulmonary function. Her studies involve humans in laboratory settings in the SOM Research Building and in Bishop, California (high altitude), as well as field studies with individuals with or without pulmonary disorders from populations adapted to high altitude in the Himalaya and in the Andes. The BREATHE center both was critical in recruiting her to UCR and has fostered her collaborations with the Department of Evolution, Ecology and Organismal Biology (EEOB) and BCOE.

Scott Pegan, PhD, (Full Professor) was hired in 2021. **He leads a well-funded (NIH, USDA, DOD) and highly translational research program** that combines innate immunity, virology and structural pharmacology with the goal of providing the foundation to develop small molecule therapeutics and vaccines for two family of viruses that are defined as high priority human health threats. His focus extends to defining the molecular evolutionary steps in specific proteases expressed in classes of viruses, which have family members that are endemic in bat and swine animal reservoirs and are at high-risk lead for “jumping” species into humans (as has happened with MERS, SARs and SARs-CoV-2/COVID-19). **He has active BSL4 level collaborations with CDC and has NIH-funded collaborations on COVID-19, thus extending the translational research focus of the Division, SOM and UCR.** He is also a **Major in the Army Reserve** and brings a critical perspective and support role for many in our campus community.

Changcheng Zhou, PhD, (Full Professor) was hired in 2019. Xenobiotics can be defined as any foreign substance or exogenous chemical, which the body does not recognize as self – for example, compounds such as drugs, pollutants, as well as some food additives and cosmetics. **Dr. Zhou has a sustained research focus on cardiometabolic disorders such as atherosclerosis, type 2 diabetes, and obesity and how xenobiotics change the risk, progression, or severity of these diseases.** He is funded by **NIH and the American Heart Association** and with additional new funding from these agencies which has extended his research into COVID-19. He is an active member of the cross-campus environmental toxicology community, participating as research collaborator and co-PI in grant applications submitted across colleges/schools.

Natalie Zlebnik, PhD, (Assistant Professor). Dr. Zlebnik’s research focuses on addiction and her expertise in multiple complex models of drug addiction are both very timely and highly relevant for our region. Dr. Zlebnik’s research program defines how endocannabinoids (eCB) serve to regulate drug craving and relapse. To do so, she combines an anatomical -based framework via innovative neurophysiological and neurochemical recording techniques along with state-of-the-art circuit dissection tools in sophisticated rodent models of cocaine-seeking behavior. **Dr. Zlebnik also seeks to develop novel behavioral treatments for drug craving and relapse. The first of such treatments, aerobic exercise, is the focus of her NIH K99/R00.** This work will give critical insight into neural mechanisms of cocaine seeking and the neurobiological targets of a promising translational behavioral therapy.

Goal: Expand and Grow the SOM Clinical Division

In September 2016, I hired **Ramdas Pai, MD, as Chair of the Department of Internal Medicine and Chair of the Division of Clinical Sciences**. Prior to this time, the clinical departments functioned in silos and did not organize to engage in a clinical strategy for the School of Medicine. **I asked Dr. Pai to form the Council of Chairs**, which included all department chairs of the clinical division as well as the Chair of the Division of Biomedical Sciences. The Council of Chairs meet on a monthly basis to plan strategically, discuss common departmental issues, collaborate on strategic goals, and align with the SOM strategic plan.

The Family Medicine department had faculty who were family medicine physicians as well as pediatricians. The LCME in 2017 recommended that the SOM develop a Department of Pediatrics independent of the Family Medicine Department and hire more pediatricians to support the medical education program. As a result of leadership changes, I have recruited five department chairs since 2016. Dr. Samar Nahas was appointed to lead the Department of Obstetrics and Gynecology in 2017, Dr. Sasi Ponthenkandath was hired to lead the Department of Pediatrics in January 2019, Dr. Asma Jafri was hired to Chair the Department of Family Medicine in May 2020, and Dr. Mark Wolfson was hired to lead the Department of Social Medicine, Population and Public Health. Dr. Arnold Tabeunca serves as Chair of the Department of Surgery. Dr. Gerald Maguire, the Founding Chair of the Department of Psychiatry and Neurosciences served from 2013-2021, and Dr. Christopher Fichtner was appointed Interim Chair in July 2021.

Faculty from all of the clinical departments engage in the medical education program through teaching and mentoring medical students and residents. The following highlights various expansion of the clinical departments since 2016.

Internal Medicine: Under the leadership of Dr. Pai, the number of **faculty and departmental revenues have doubled** since 2016. In 2016, the **cardiology fellowship was started** which trains four fellows annually and half of the fellows remain in the Inland Empire to practice. Additional fellowship training programs were added, including **gastroenterology (2018), interventional cardiology (2019), critical care medicine (2021), and a second internal medicine residency program (2021) to address the needs of physicians in the Inland Empire**. The department publishes on **average 30 manuscripts** as well as book chapters. UCR's Internal Medicine cardiology faculty plays a critical role in the provision of cardiac care in the Inland Empire and their expertise has assisted increasing the quality of cardiac care at St. Bernardine Medical Center, Loma Linda VAMC, and UCR Health. As Chair of the Division of Clinical Sciences, Dr. Pai leads an **annual Research Collaborative Retreat** (average 70 attendees) which includes faculty from SOM, Bourns College of Engineering, College of Natural and Agricultural Sciences, Riverside University Health System (RUHS), Loma Linda VAMC, and physician group partners in the Inland Empire. As a direct result of these retreats, several **collaborative grants have been submitted and funded** by National Science Foundation and the National Institutes of Health.

Obstetrics and Gynecology: When the department was established, physicians were hired in the areas of general obstetrics/gynecology, urogynecology, and oncology/gynecology. Under the leadership of Dr. Nahas, the department **expanded its specialists in 2019** to include minimal invasive surgery, maternal and fetal medicine, and reproductive endocrinology and infertility. In June 2020, the department launched its Minimally Invasive Gynecologic Surgery Fellowship to provide training in advanced endoscopic procedures and provide surgical exposure in general gynecology, oncology, urogynecology, and infertility.

In collaboration with UCR Health, the department **expanded its Women's Health Services facility** in October 2020 and hosted a Virtual Open House for the Inland Empire. The facility expansion included two large procedural rooms to support urogynecology and oncology gynecology, an additional lab, eight new exam rooms, an additional nursing station, and teaching space for medical students and residents. The department supported UCR medical students in **launching a Breast Milk Depot** in collaboration with UC San Diego. The goal of the project is to collect donated milk and redistribute it within the Inland Empire to local hospitals, to benefit mothers who cannot produce breast milk on their own and the fathers who are the primary caretakers of their babies.

The clinical services provided by the OB/Gyn department fulfills a need in services that patients had to travel to Irvine, San Diego and Irvine to receive. **The clinic volume in Women's Health Services has grown exponentially**, and FY22 volume is expected to exceed FY21 by more than 30%.

Family Medicine: Under the leadership of Dr. Jafri, the **family medicine residency program was relocated to St. Bernardine Medical Center** and family medicine faculty serve in the St. Bernardine hospitalist program. The UCR Family Medicine Residency program established a **Street Medicine Program** and **Middle School Sex Education Program**. A residency clinic was established at the **Lestonnec Free Clinic** in San Bernardino, and family medicine clinic was expanded at UCR Health. The department recently established a **nursing home service** through UCR Health, providing care to patients of the Waterman Canyon Nursing Facility in San Bernardino. Drs. Jafri and Nate McLaughlin play an important role in the safety and well-being of the UCR campus during the pandemic and they serve as **co-chairs of the Public Health Committee** under the auspices of COVID-Management.

Surgery: UCR School of Medicine does not have full-time faculty in the Surgery department. Under the leadership of Arnold Tabuenca, MD, Chair of the Surgery Department and Chief Medical Officer at Riverside University Health System, **the department has played a key role in the education of medical students and residents**. Dr. Tabuenca also serves as the department liaison with RUHS to **facilitate medical student rotations in Surgery and other clinical departments**. More recently, some surgeons at RUHS have joined UCR as community faculty members, and a few are **engaging in collaborative research activities with UCR**.

Psychiatry and Neurosciences: Under the leadership of Gerald Maguire, MD, Founding and Past Chair of the Department of Psychiatry and Neurosciences, the number of community faculty **more than doubled and affiliations/partnerships** were expanded to serve the education, clinical, and research missions. These relationships include clinical service and training agreements with Riverside County (RUHS and Department of Public Social Services), the State of California (DHHS, Patton State Hospital), Acadia Pacific Grove Hospital, Veterans Affairs (VA) Loma Linda Medical Center and Community-Based Outpatient Clinics (CBOCs), Clinicas de Salud, Morongo Basin, Desert AIDS Project, Olive Crest, Eisenhower Medical Center and the Hazeldon Betty Ford Center, VA Long Beach Medical Center, and Riverside Community Hospital (Neurology and Neurosurgery).

Psychiatry and neuroscience faculty treat patients at the UCR Health clinical services at Citrus Tower and Airport Towers Orange County, as well as through telehealth services. The **Telepsychiatry Services** were established prior the COVID-19 pandemic, and it was a model that assisted UCR Health in quickly pivoting to provide telemedicine across all of its clinical services with the advent of the COVID-19 pandemic. **The Department of Psychiatry received a \$15 million state appropriation through the State Budget Act of 2018** to expand its residency training program and telehealth services to address the underserved population in the Inland Empire region and hire faculty to address the psychiatric and mental health workforce needs.

Over the past five years, the psychiatry residency program has doubled the number of residents, and a fellowship training program in **child/adolescent psychiatry was established in 2017**. In 2020, **an addiction medicine fellowship was established in collaboration with Eisenhower Medical Center and Hazeldon Betty Ford Center**. The department has played a significant role in UCR's medical education program, and UCR graduates match into Psychiatry residency training programs double the rate of the national average. The Continuing Medical Education (CME) programs through the department provides a **Grand Rounds Series** which attracts local psychiatrists, trainees, and medical students with attendance on average of 80 participants. Psychiatry faculty engage in scholarly activities collaboratively with the trainees and **publications of research papers, review articles, and book chapters have doubled**.

Psychiatry faculty engage in research and several **faculty members have research funding from NIH as well as industry**. Dr. Maguire and other faculty participated in multiple clinical trials over the past five years and he has **a few registered patents**.

Pediatrics: Under the leadership of Dr. Ponthenkandath, **the Pediatric Department was established in 2019** and all pediatricians within the Family Medicine department were transferred to the new pediatric department. The **faculty has quickly grown to eight FTEs** and faculty are playing an active role in providing pediatric services in the Inland Empire. The department operates a **Pediatric Hospitalist Service at Eisenhower Medical Center**, and recently contracted to provide **Newborn Call Services at Riverside Community Hospital**. The department has also **partnered with the Hi Desert Federally Qualified Health Center** to provide pediatric services including **outpatient and school health clinical care**. In collaboration with UCR Health, the department **opened the La Quinta Pediatric Clinic in the Coachella Valley** to

meet the dire pediatric needs in the desert. The faculty have begun to engage in research through the SOM's Center for Health Disparities Research and **Jean Russell, MD, received a sub-award**, "Addressing Health Disparities through Virtual Care to Prevent Postpartum Depression."

Social Medicine, Population and Public Health: Under the leadership of Dr. Mark Wolfson, the Department of Social Medicine, Population and Public Health **uniquely contributes to the educational mission** of the School of Medicine and UCR. Department faculty are actively involved in **bringing critical public and population health content to undergraduates** (e.g., Capstone Projects), graduate students (e.g., guest lectures in multiple departments throughout UCR), medical students (SOM Public Health Thread in curriculum), and medical residents.

Over the past five years, the department has more than **doubled its research activities with funded research** through NIH's National Institute of Mental Health, National Institute on Alcohol Abuse and Alcoholism, National Institute on Drug Abuse, and the National Institute on Minority Health and Health Disparities, as well as the Substance Abuse and Mental Health Services Administration, the Patient Centered Outcomes Research Institute, industry, and other sources.

The department is currently leading a campus-wide group in **developing a proposal for a master's of public health program** which will reside in the department. Dr. Wolfson has taken a leadership role in bringing together faculty and staff from multiple UCR Schools/Colleges including BCOE, CHASS, CNAS, SPP, as well as the SOM to apply for large center grants and program projects. The Department of Social Medicine, Population and Public Health is the **organizational home for the Center for Healthy Communities** (see section on CHC), providing support and guidance for the Center in its efforts to build connections between researchers and organizations within the Inland Empire communities through service, education, and research that addresses community needs and promotes health equity.

Goal: Restructure, expand and grow UCR Health

Five years ago, when I joined UCR SOM, I inherited the formative development of UCR Health. One clinic, Evans Park, was established and the SOM had hired several full-time clinicians in anticipation of starting a physician practice. These physicians were being paid a full-time salary without any clinical expectations; furthermore, a patient-base had not been established. The SOM did not conduct financial pro-formas, neither did it secure financial resources to invest in a clinical practice. All clinical expenses were deficit spending, and a 10-year clinic lease had been signed for an 11,500 square foot clinic space which I could not rescind or modify. My initial assessment of the clinical enterprise revealed what would soon become a \$20 million deficit and with further forecasting, a \$40 million deficit would be the outcome by 2022. Additionally, relationships with the clinical affiliates were precarious. I had to make some very difficult decisions to quell the financial bleed and begin to build positive relationships. Decisions

included changing the clinical leadership of UCR Health, holding clinical faculty accountable with expectations for engaging in clinical care, and developing a strategic plan for UCR Health.

Mend relationships with Clinical Affiliates and Develop Professional Service Agreements

I assigned Department Chairs as Liaisons to each of the SOM's hospital affiliates and I held regular meetings with each Chief Operating Officer. Over time, UCR SOM was recognized as a partner in providing care to the people of the Inland Empire. **I hired Don Larsen, MD, as CEO of UCR Health**, and he developed a schedule of regular meetings with the affiliate hospital CEOs. **The SOM developed professional service agreements (PSAs)** to place some of our full-time clinicians in the hospital settings of Riverside University Health System (RUHS), Riverside Community Hospital, Desert Regional Medical Center, and St. Bernardine Medical Center.

Open Multi-Specialty Clinic, Citrus Tower

In May, 2017, the SOM **opened its UCR Health flagship location at Citrus Tower** in Riverside and **launched its website for UCR Health** on www.ucrhealth.org, a patient-focused website which includes a blog featuring entries by UCR Health physicians and clinical services offered, as well as access to a patient portal. The **opening of Citrus Tower** marked the beginning of expanded clinical services in internal medicine, child and adolescent psychiatry, family medicine, neurology, neurosurgery, general obstetrics and gynecology, pain medicine, physical medical and rehabilitation, and sports medicine. In partnership with UC San Diego, and assisted by John Luo, MD, the Chief Medical Information Officer, **UCR Health launched Epic**, its new electronic medical record.

A **marketing strategic plan was launched** to raise awareness of UCR Health in the community, and a **telehealth contract** was signed to deliver psychiatric care to patients of Clinicas de Salud de Pueblo, a Federally Qualified Health Center (FQHC). Katherine Hansen was hired as the new Chief Operating Officer (COO) and she **instituted the Tableau performance reports** to track charges, payments, work relative value units (w-RVUs), etc. UCR Health experienced a noticeable increase in patient volume, and physicians became more engaged with their work.

Hire Key UCR Health Leadership

In addition to the hiring of the Chief Executive Officer (Dr. Larsen) and Chief Operating Officer (Katherine Hansen), other key leadership positions such as Chief Medical Officer (Andres Gonzalez, MD), and Director of Clinical Finance (Stan Augustine) were filled.

Clinic Expansion and Growth of UCR Health

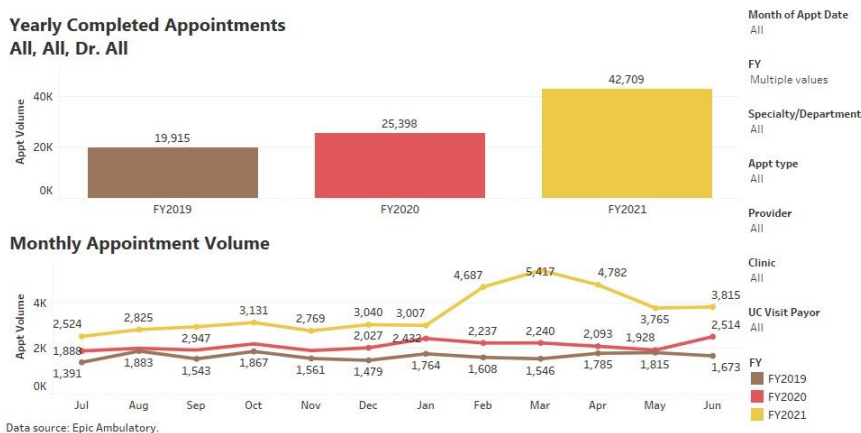
With the clinical growth of UCR Health, in 2018 Women's Health Services was expanded under the leadership of Samar Nahas, MD, Chair of Obstetrics/Gynecology, to include urogynecology, oncology-gynecology, minimal invasive surgery, maternal/fetal medicine, and reproductive endocrinology/infertility. During Fall 2019, UCR Health opened a new clinic, UCR Pediatric La Quinta Clinic to serve the pediatric and family medicine needs in the Eastern Coachella Valley.

This clinic fulfills a critical need in the Coachella Valley where there is a dire need for pediatricians, and it has experienced remarkable growth in patient volume.

During Spring 2020, a cardiology specialty service including cardiac imaging was added to the Citrus Tower, and the clinic demand has been exponential since opening. Given the prevalence of heart disease in the Inland Empire, the cardiology services in UCR Health responds to a serious regional health challenge. Plans are underway to include services in pulmonology and gastroenterology as soon as 2022.

Most recently, plans have been developed to establish the Hulen Place clinic in partnership with the City of Riverside to serve the needs of the homeless and under-served population of Riverside. Hulen Place will also serve as a clinical teaching platform for primary care resident physicians in the Family Medicine and Internal Medicine Residency Training programs. The anticipated date of opening Hulen Place is May, 2022.

Over the past three years, UCR Health has seen a consistent year-over-year growth in clinic volume among its five existing UCR Health ambulatory clinic sites despite the challenges of the pandemic and limited startup capital. The graphic below demonstrates year-over-year growth in clinic appointment volume and includes the shift to telehealth visits in some specialties.



Goal: Provide leadership in promoting health and wellness on the University of California Riverside Campus

UCR Healthy Campus

UCR is part of the Healthy Campus Network (HCN), a University of California (UC) system-wide initiative that promotes innovative reforms in all dimensions of health and well-being with the

goal to: “Make UC the healthiest place to work, learn, and live.” HCN is a robust network of diverse coalitions across all 10 UC campuses working together to promote individual campus and system-wide changes that advance a culture of health and well-being. HCN organizes its campus-level population and public health promotion efforts into the Robert Wood Johnson Foundation Culture of Health Framework action areas: 1) making health a shared value; 2) fostering cross-sector collaboration; 3) creating healthier, more equitable communities; and 4) strengthening integration of health services and systems; and engaging campus (administrators, faculty, staff, students) and off-campus (e.g., public health departments, community-based organizations) stakeholders in developing and implementing strategies to infuse health into everyday operations, business practices, and academic life. UCR Healthy Campus conducted a 3-year longitudinal mixed-methods study to assess the impact of activity on creating a culture of health. The most recent research summary can be found [here](#).

Chancellor Wilcox appointed me to serve as Champion for UCR Healthy Campus. UCR Healthy Campus was established in 2016 and Ann Cheney, PhD, and Ms. Julie Chobdee were appointed Healthy Campus Co-Chairs. Under the leadership of Dr. Cheney and Ms. Chobdee, nine subcommittees (built environment, healthy eating/nutrition, preventative health, metrics, physical activity, mental health, culture change, substance use & addiction, public health anti-racism) each led by faculty and staff co-leads, and a stakeholder advisory board of over 75 staff, students, and faculty across campus were formed. The process of initial partnership development, key stakeholder engagement and stakeholder perspective of activity was published in 2020 in [Progress in Community Health Partnerships](#).

Over the past several years, UCR Healthy Campus made a significant impact on the UCR campus community, contributed to the growth of the HCN, and received national recognition. UCR Healthy Campus leadership has implemented key initiatives in collaboration with the HCN to create cultures of health. This includes implementation of the [Take the Stairs Campaign](#) in 2017-18 to increase physical activity and mindfulness and the [Healthy Beverage Initiative](#) in 2019-present to increase access to clean water and reduce consumption of sugar-sweetened beverages. In 2020, amidst the initial months of the pandemic, leadership held the [Health and Well-Being during COVID-19](#) webinar series and conducted research on campus public health measures and a safe return to campus published in 2021 in [Health Education & Behavior](#). Additionally, in summer 2020 amidst the civil and social unrest and harm against Black, Indigenous and People of Color (BIPOC), leadership convened an anti-racism as a public health crisis forum to identify campus needs and strategies to move the campus culture toward one of racial justice. A total of 157 campus members participated in the forum, which led to the development of the public health anti-racism subcommittee (see the Anti-racism forum report for additional information). A list of all milestones and accomplishments can be found [here](#).

UCR Healthy Campus has received national recognition for its efforts. In 2018, UCR Healthy Campus received the **American College Health Foundation (ACHF) Healthy Campus 2020 Award** and was selected by the **Robert Wood Johnson Foundation as 1 of 20 organizations for exemplar community health**. In 2020, UCR Healthy Campus received the **ACHF College & Well-being Award** and the **2020 First Risk Advisors Initiatives in College Mental/Behavioral Health**

Funding. Furthermore, since its establishment leadership has successfully obtained **external grant funding** from the ACHF (\$10,000), Substance Abuse and Mental Health Services ACT (SAMHSA; \$1,500), the Patient Centered Outcomes Research Institute (\$250,000), Riverside University Health System Behavioral Health (\$2,000), United Ways (\$15,000), and in-kind support from SAMHSA—Collegiate Recovery Programs Technical Assistance.

UCR Campus COVID Management

The School of Medicine, including UCR Health, assumed a prominent leadership role during the pandemic, and served as a resource to the UCR campus across multiple domains. **Chancellor Wilcox appointed me as the Vice-Chancellor Lead for COVID Management for the UCR campus.** The SOM created a structure for UCR to manage various aspects of COVID-19 under the auspices of COVID Management. **The committees formed included: COVID Management, Public Health, Employee Health, Testing, and Student Health.** The **COVID-19 Management Team** led by Linda Roney is the centralized campus team responsible for developing guidance and recommendations for departmental groups, as well as for continuity teams to utilize as the frame of reference and support to establish operational processes and procedures. This includes, but is not limited to the Daily Wellness Survey, consultation and guidance on exposures/symptoms/travel, conducting case investigations, managing outbreaks, COVID-19 testing, vaccine distribution, vaccine compliance, AB-685 Notifications, SB-1159 Notifications, public health guidance, and student health. The **Exposure Management Investigation Team (EMIT)** led by Linda Roney acts on behalf of the **COVID-19 Management Continuity Committee** (led by Christine Victorino, PhD, and Linda Roney) to ensure the UCR campus meets federal, state, and local compliance procedures. EMIT is also responsible for oversight of positive cases that impact departmental operations, including building notifications, union communications, assessing potential infection risks, and acting as a liaison to the Public Health division of the Riverside University Health System. The Student Health Committee led by Drs. Denise Woods and Ken Han, as well as Danielle Bowers, has oversight to ensure that the campus community has protocols in place for students to stay safe through the coordination of student testing, health safety and prevention education, compliance related to the COVID-19 mandate (in addition to the flu vaccine mandate and other mandatory immunizations), and providing quarantine/isolation spaces for students living in on-campus housing and the resources related to that process. The **Employee Health Committee** led by Dr. Don Larsen and Katherine Hansen developed the wellness survey and works with partners in Human Resource to facilitate employee return to work after quarantine. The **Vaccine Management Committee**, led by Andres Gonzalez, MD, has oversight for the campus vaccinations, including COVID-19 and Influenza. The committee's scope includes, but not limited to, communications for where to receive a vaccine, why it is important to be vaccinated, policy-related processes, etc. The **Testing Committee**, led by Drs. Rodolfo Torres and me, has oversight for campus testing protocols and procedures, including surveillance testing, symptomatic testing, exposure testing, as well as provides oversight for the **UCR COVID-19 Testing Lab** established by Katherine Borkovich, PhD, and Isgouhi Kaloshian, PhD. The **Public Health Committee** led by Asma Jafri, MD, and Nate McLaughlin, MD, along with Linda Reimann, has oversight of advising on the Centers for Disease Control (CDC), California Department of Public Health (CDPH), and Riverside County Department of Public Health (RDPH) guidelines for aspects related to COVID-19,

inclusive but not limited to approvals of return to campus protocols (classrooms, research and creative spaces, campus buildings, dining halls, etc.).

The aforementioned COVID-19 Management structure was implemented soon after the stay-at-home order was initiated for Riverside County and the teams have continued to work collaboratively to ensure a safe and healthy place for learning and working on the UCR campus. To ensure continuity and input from the School of Medicine, a SOM faculty member was assigned to serve on all other campus committees related to COVID-19. UCR Health led by Dr. Don Larsen played an integral role in the vaccine administration and successfully administered thousands of vaccine doses to UCR employees while providing care for patients. In my roles as Vice Chancellor Lead for COVID Management, I continue to work closely with the COVID management committees and serve on the Chancellor's Executive Cabinet where high-level decisions related to the pandemic are made.

Goal: Promote Diversity, Equity and Inclusion throughout the School of Medicine

Diversity, equity and inclusion **(DEI) are interwoven throughout the missions in the SOM**, and it is at the forefront of the SOM mission—to train a diverse physician workforce and develop programs in research and clinical care to serve the population of the Inland Empire. As seen throughout my five-year review summary, DEI is integral to who we are as a medical school, and how we engage in the work of the medical school internally, and within the communities we serve. We **scaffolded our mission with values—inclusion, innovation, integrity, excellence, accountability and respect, all determined by the SOM's stakeholders in a collaborative process.**

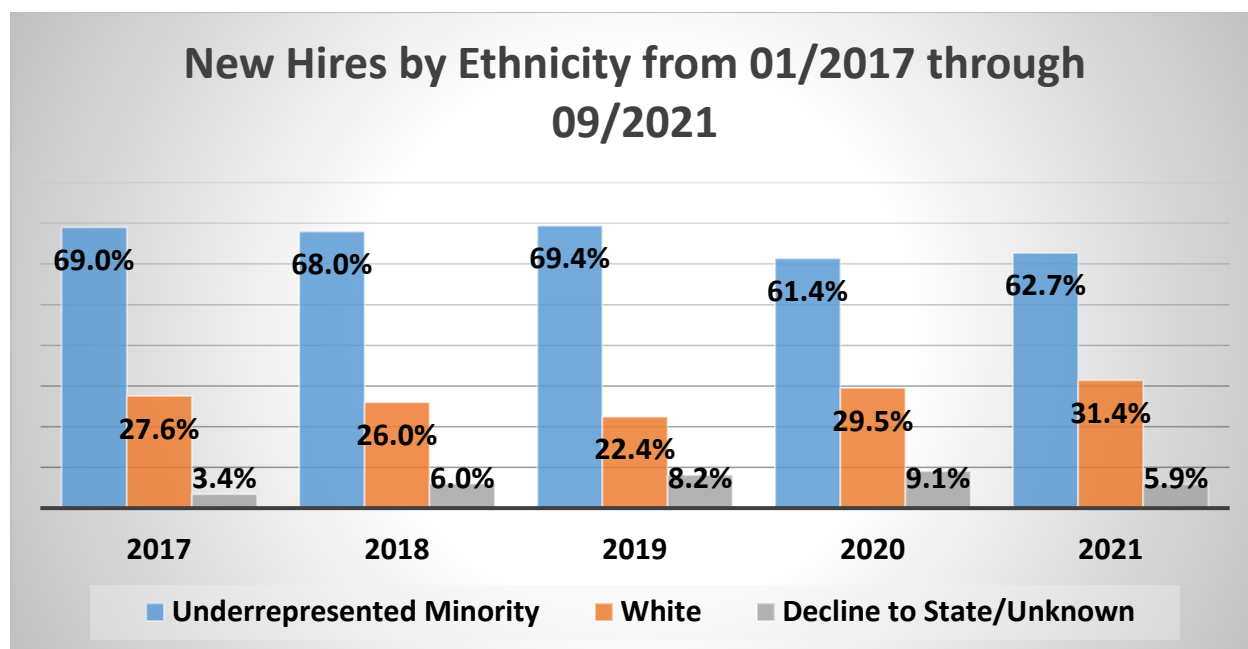
I appointed two Equity Advisors, Takesha Cooper, MD, and Brandon Brown, PhD, to collaborate and advise leaders in SOM on best practices for recruitment and retention, addressing bullying and discrimination, and anti-racism; and serve as a resource to faculty, staff and students on DEI issues/concerns. The Equity Advisors have developed our Equity Advisor website, held regular monthly office hours and frequent consultative appointments, conducted implicit bias and school-wide trainings, assisted department chairs in the development of their diversity goals, collected diversity statistics of faculty, students, and staff, attended leadership meetings, co-created the SOM student survey on inclusivity and assisted the SOM Human Resources with the creation of exit interview questions for staff and faculty. They serve on most search committees for leadership positions as well as work closely with the University affirmative action officer.

I appointed Dr. Cooper to serve on the UC Health Diversity Task Force representing the UCR School of Medicine from 2018-2020 and the taskforce rendered a report which identified best practices and inclusive policies that are expected to improve diversity, equity and inclusion throughout the entire UC Health system. (<https://www.ucop.edu/uc-health/files/uc-health-sciences-diversity-taskforce-report.pdf>)

Drs. Cooper and Brown serve as Co-Chairs of the **SOM Diversity Committee** consisting of a group of 20 faculty, staff, residents, and students. The committee was charged with developing an over-arching **SOM Diversity Plan 2020-2025**, which was approved in FY20 by the SOM Dean's Council. The SOM Diversity Plan will serve as a roadmap for departments and units within the SOM. All departments and units are required to engage its stakeholders in developing their diversity plans. The Equity Advisors will work with the departments and units to advise and track progress.

Under Ms. Sylvia Vasquez' leadership in Human Resources, the SOM employs innovative recruitment strategies to attract very diverse applicant pools. We have advertised on non-traditional sites, such as AAMC Diversity, Women in Higher Education, Hispanic Professionals, National Black MBA Association, and Diversity A World Change, among others.

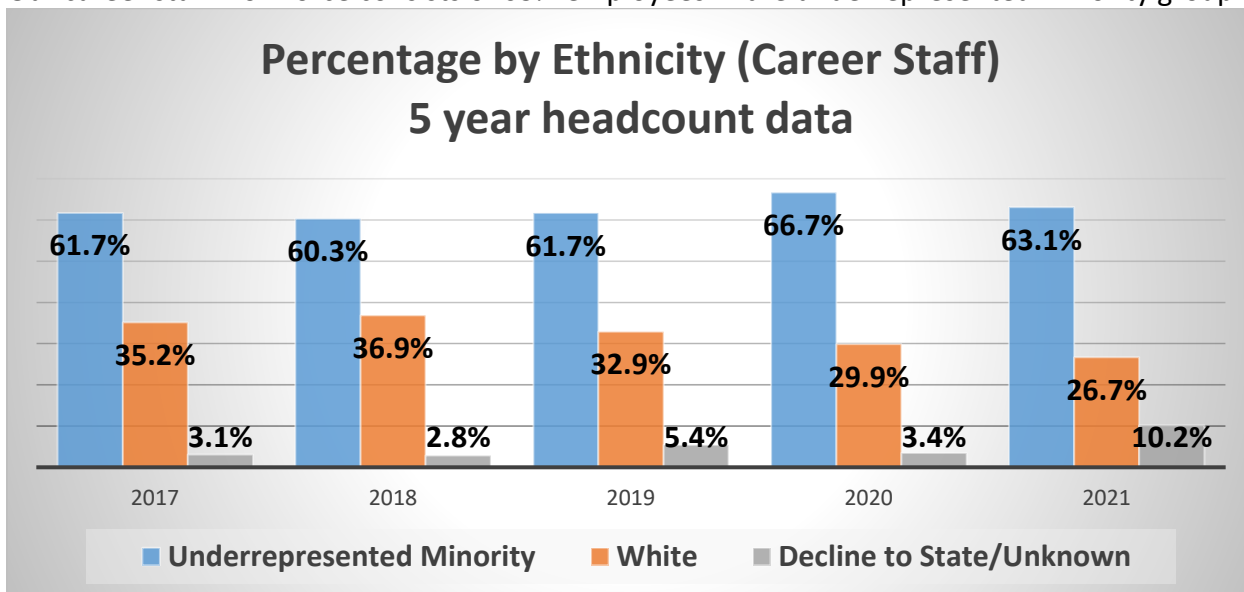
The diversity/outreach efforts in recruiting top talent have demonstrated to be successful as over 60% of the SOM staff hired within the past five years are in underrepresented minority groups (January 2017 through 09/01/2021:



The number of staff new hires includes both new positions and replacement positions:



Additionally, the diversity of our new hires is consistent with our total career staff workforce. Our career staff workforce consists of 63% employees in the underrepresented minority group.



The number of career staff has increased in the past 5 years from 128 to 206 which is approximately a 60% increase.

Recruit a Diverse Student Body—Medical and Graduates Students

Biomedical Sciences Program (PhD and MS)

Nationally, programs have been developed to attract and recruit under-represented individuals in the Science, Technology, Engineering and Math (STEM) programs. The School of Medicine

STEM Pathway Program, “Bridges to the Baccalaureate” led by Dr. Ford, has been successful in recruiting URM students into STEM programs. According to the Pew Research Center in 2018, the STEM workforce consisted of 7% African-Americans and 6% Latinx with a STEM baccalaureate degree.

The Biomedical Sciences Division, under the leadership of Dr. Carson has made a concerted effort to develop programs and initiatives to attract and recruit under-represented students into the Biomedical Sciences PhD and Master’s programs. **Of the 53 biomedical sciences students enrolled in Fall 2021, 42% are under-represented students.**

Medical Students

The SOM Admissions Committee under the leadership of Dr. Cooper **employs a holistic review of applicants** evaluating, but not limited to the following: “distanced-traveled”, first in family to complete a college degree, disadvantaged status (socio-economic and/or educational), ties to the Inland Empire, etc. Students are also evaluated for “mission-fit” or how well their aspirations align with the SOM’s mission of serving under-served populations.

Last year, the SOM admitted 78 medical students from a pool of more than 6,000 applicants, and the matriculated class consisted of: **50% under-represented in medicine (URM), 61% disadvantaged, 20% English as a second language, 36% first in family to attend college, and 57% with ties to the Inland Empire.**

Regional and National Recognition for Diversity

The SOM is becoming a national leader in DEI holding key diversity leadership positions regionally and nationally. Dr. Cooper and I serve on the AAMC Group on Diversity, Equity and Inclusion and participate in developing a national framework for diversifying the physician workforce, integrating anti-racism in medical school curricula, and developing programs to assist medical schools. **Dr. Cooper was elected to the Association of American Medical Colleges (AAMC) Group on Diversity and Inclusion (GDI) Steering Committee** as the Western Region Representative where she will engage with DEI representatives from medical schools in the Western United States, serve as a resource, and collaborate with AAMC professional development groups to create and implement GDI initiatives, projects, and activities. This regional presence will undoubtedly benefit and inform DEI activities in SOM. She is also a **member of the Accreditation Council of Graduate Medical Education (ACGME), Equity Matters initiative** aimed at effecting change within GME by increasing physician workforce diversity.

The SOM was recognized by **US News and World Report in Diversity as Top 6 among US Medical Schools for Diversity.** This recognition highlights the SOM’s recruitment of medical students from diverse backgrounds, having matriculated a class of medical students in 2020 with 50% representation from under-represented in medicine backgrounds. Our students are graduating and serving the mission of the school and on average they are significantly more likely to choose careers in fields designated to be “areas of high-need.” Data from the **Association of American Medical Colleges (AAMC) reveal that UCR SOM was #1 in the nation**

in our graduating medical students' intentions to focus their careers on underserved populations, doing so an incredible 71-77% of the time, compared with national averages of only 20%.

UCR's "Bridges to the Baccalaureate Program" led by Dr. Ford in the SOM received the **2018 Inspiring Programs in STEM Award from INSIGHT Into Diversity magazine**, the largest and oldest publication in higher education addressing diversity and inclusion. In 2019, the School of Medicine received the **Health Professions Higher Education Excellence in Diversity**, or HEED, Award from INSIGHT Into Diversity magazine. This award is a national honor recognizing U.S. colleges and universities that demonstrate an outstanding commitment to diversity and inclusion, and the UCR School of Medicine was among the 42 Schools/Universities in the United States to receive the award. Again in 2020, UCR School of Medicine received the **Health Professions Higher Education Excellence in Diversity Award**, was the only University of California health professions schools to be recognize, and one of 46 institutions to receive the award in the US. **One of the SOM's Pathway Programs, Future Physician Leaders**, or FPL, program was named a recipient of INSIGHT Into Diversity magazine's **2021 Inspiring Programs in STEM Award**.

I have been **recognized for my work in DEI since I joined UCR School of Medicine**. I was recognized with the **Giving Back Award** by *INSIGHT Into Diversity Magazine*, April 2017, the **Woman of Action Award** by the Major of the City of Riverside and the Advancement of Colored People (NAACP), the **Legacy of Service Award** by the Riverside Women's Club, and the **Leadership in Medicine Award** by the National Hispanic Foundation of the National Association for Hispanic Physicians.

Goal: Foster Faculty/Staff Engagement and Enhance Communications

One of my goals was to robustly engage faculty and staff in all aspects of the SOM mission, communicate effectively and promote a culture of transparency. Towards that end, working with Strategic Initiatives under the leadership of Kathy Barton through 2019, and Linda Reimann thereafter, I initiated several activities to enhance faculty engagement. The **Applause Award and Values in Action Award** were established as a means to celebrate the accomplishments of faculty and staff. To recognize outstanding individuals who are commended for doing something remarkable from someone external to the SOM, the **Applause Award was instituted to honor employees earning outstanding feedback from patients, key stakeholders, and other members of the communities we serve**. Since 2016, the **Values in Action Award** has recognized exceptional employees (faculty or staff), students, or community-based teaching faculty members who exemplify the values of the UCR School of Medicine – Inclusion, Integrity, Innovation, Excellence, Accountability and Respect. **This quarterly award has been bestowed upon 20 individuals within the School of Medicine.**

To promote a culture of transparency and accountability, one of the core SOM values, several regularly scheduled efforts have been developed to open the lines of communication across the

School of Medicine. **School-wide SOM Town Hall meetings** are held for all students, faculty, and staff to receive important updates from me, along with other leaders representing the SOM mission areas. An overview of SOM Finances is presented at the Town Hall meetings twice annually. The SOM Town Hall meetings were originally scheduled on a quarterly basis, however in light of the unpredictable changes related to the COVID-19 pandemic and the need for social distancing, the meetings have shifted to monthly intervals and hosted online via Zoom. Hosting Town Halls online has increased participation as this format has removed barriers for participants who previously could not attend due to their travel from community work sites and scheduling conflicts. ***Dialogue with the Dean*** has been implemented to provide opportunities for staff, faculty, and students to meet one-on-one with the Vice Chancellor/Dean in 15-minute increments.

To accommodate small group discussions around UCR SOM goals, concerns, and other important updates, ***Lunch with the Dean was established in 2016*** to provide SOM faculty, staff, and students a forum for monthly lunchtime table talks with the Vice Chancellor/Dean. The **Year-in-Review publication** has been produced and distributed annually since its original development in 2017 (see Appendix). Each year, this document serves as a showcase of the successes and accomplishments achieved across the School of Medicine.

Faculty and Staff are recognized with **Service Awards** during the SOM Holiday Event accompanied by a special program of fellowship, games, and dancing. This is usually a fun-filled event with lots of joy and laughter. **Faculty Teaching Awards** are presented during the Spring to recognize faculty for excellent teaching skills, and the faculty are selected by students for these awards.

Soon after my arrival, in collaboration with Strategic Initiatives, I initiated the **SOM Dean's Newsletter** which was published twice monthly to present highlights of important activities in the SOM and to recognize faculty, staff, and students for their extraordinary accomplishments. After almost three years of twice monthly publication, the SOM Dean's Newsletter is now published on a monthly basis.

Units and departments throughout the SOM were encouraged to develop websites, and Ross French, SOM Digital Communications Manager, worked with them to create or renew its websites. Today, the **SOM Office of Strategic Initiatives host a total of 54 websites**. Strategic Initiatives, under the leadership of Linda Reimann worked collaboratively with University Communications to increase the number of publications highlighting SOM and its faculty, staff, and students. **Since September 2020, more than 50 articles have been published**, including: articles about faculty research, general news, and expert articles.

Goal: Foster Community Engagement

The School of Medicine's Center for Healthy Communities (CHC) was established in 2014 under the leadership of the SOM Founding Dean, Dr. Richard Olds, with the mission-to build collaborations and partnerships with the community. Through these partnerships, CHC engaged

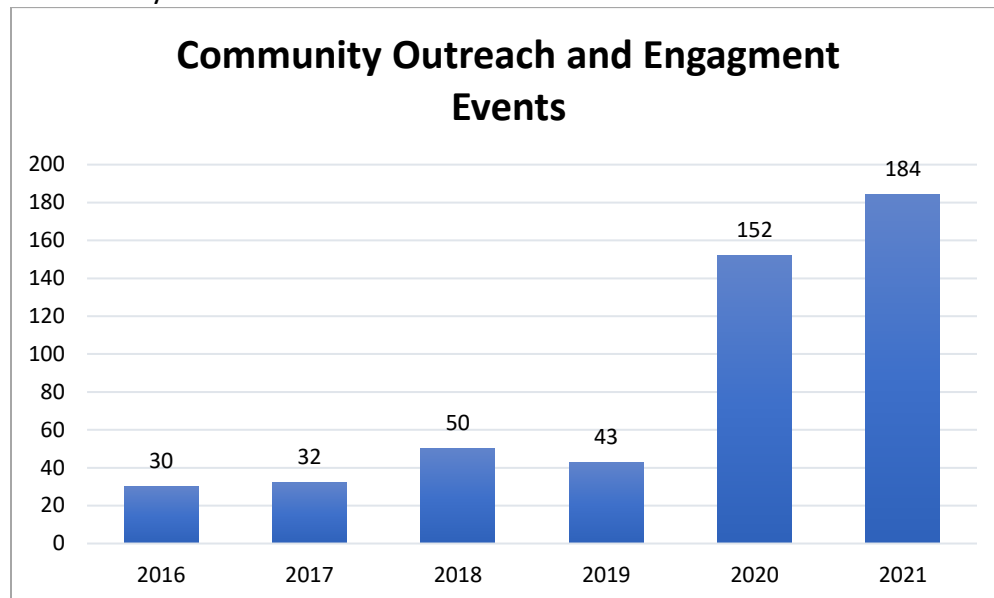
in community-based participatory research and sought to investigate areas germane to the Inland Southern California region. In 2017, I worked with the SOM leadership to **expand the CHC's mission**: to facilitate innovative research and engage in education and service aimed at improving the health of culturally, linguistically, and economically diverse communities in the region, especially those who are medically under-resourced. To broaden the scope of the CHC, **all departments/units are expected to develop a community engagement plan**. Each year, departments/units report annually on their community engagement efforts.

The Center for Healthy Communities is housed in Department of Social Medicine, Population and Public Health under the leadership of Mark Wolfson, PhD, Department Chair and Michelle Burroughs, Deputy Center Director and Director of Community Engagement and Outreach. Ms. Burroughs works collaboratively with SOM departments and units to align its community engagement plans with the CHC. **Between 2016-2021, the SOM has participated and/or hosted almost 500 activities related to health, education, and research.** (See Appendix for a list of CHC activities)

The **CHC has published two (2018-2019 and 2019-2020) impact reports**, and delivers a sustained and continuous bilingual (English and Spanish) educational effort through social media. In April 2020, **CHC launched its own YouTube Channel** for a series on "Putting a Lid on COVID-19" to inform the public about the virus. Ms. Burroughs of CHC's served as moderator of a panel entitled "Informing Through Crisis: COVID-19's Impact on Black Communities" at the 2020 League of California Cities Virtual Annual Conference and Expo, as well as a panel entitled "STOP COVID-19 in the Black Community" at the 2021 League of California Cities African American.

CHC is actively engaged with the community in addressing and eradicating structural racism on multiple levels. The CHC participated in the League of California Cities African American Caucus Conversation Series: *Structural Barriers: Declaring Racism A Public Health Crisis* as well as the moderation of two virtual town hall meetings of the Riverside Branch of the NAACP devoted to Police Reform in 2020. Over the past two years, the CHC has collaborated with the California Air Resources Board, UCR Center for Health Disparities Research Community Engagement and Dissemination Core, and UCR Center for Health Disparities Research Addressing COVID-19 Testing in Structurally Vulnerable Communities project.

The graph below depicts the exponential increase in the number of community engagement activities by the School of Medicine since 2016.



Goal: Engage in Service at all levels (UC-system-wide, UCR, California, Regionally and Nationally)

Over the past 5-years, I have actively engaged served in the UC system, UCR, and State of California, as well as regionally and nationally.

University of California System-wide Service

Since joining UCR School of Medicine, I have been very active at the UC system-wide level. I served on the Search Committee for the Vice President of UC Health, and served as the UC designated Co-lead for the University of California and California Medical Association Research on Faculty Burnout in Women Physician.

I am also a member of the University of California Medical School Deans Group, the UC Health Leadership Committee, and the UC Health Strategic Planning Committee.

University of California Riverside Campus-wide Service:

I served on the Search Committee for the Interim Dean of the College of Humanities and Social Sciences (CHASS) and was Chair of the Search Committee for the Dean of CHASS. I was a member of the UCR's MRB1 Space Assignment Committee. For the past five years, I was the Campus Champion Lead for UCR Healthy Campus, comprised of more than 10 subcommittees, with focus on the health and wellness of students, faculty, and staff at UCR.

I am a member of the Provost Cabinet, the Ethics and Compliance Risk and Audit Control Committee, Chancellor's Executive Committee, Chancellor's Cabinet, Strategic Planning

Committee -Contributions to the Public Good, UCR Dean's Council, UCR Research Council, and the Campus Recovery Planning Leadership Group.

Since the COVID-19 pandemic, I have served as Vice Chancellor Oversight of COVID Management which includes the COVID-19 Testing Committee, Employee Health Assistance Committee, and Public Health Committee. I am the Vice-Chancellor representative to the Riverside County Public Health Commission and I meet with the Riverside Commissioner of Public Health monthly to remain current on public health policies, procedures, and decisions related to COVID-19.

UCR School of Medicine Service: I am the Chair of the School of Medicine Compliance Committee, the Dean's Council and the SOM Strategic Planning Committee. I am a member of the Liaison Committee on Medical Education (LCME) accreditation taskforce, as well as ex-officio member of the Faculty Executive Committee, and Graduate Medical Education Committee.

California Statewide Public Service: I am a member of the California Institute for Regenerative Medicine (CIRM) Board where I also serve as Vice Chair of the Legislative Subcommittee, member of the Evaluation Subcommittee, the Science Subcommittee, and the Independent Citizen's Oversight Committee. I am also a member of the California Medical Association (CMA).

Riverside Public Service: I am a member of the Riverside County Medical Society, the Latino Health Network, the National Association for the Advancement of Colored People (NAACP), Riverside County Cooperative for Economic Empowerment and the Cooperative for Economic Empowerment Medical Team. I have been a regular speaker at the California Baptist University Career Day, Greater Riverside Chambers of Commerce, the Group, Leadership Riverside, and the Concerned Citizens of Riverside.

Association of American Medical Colleges: I am currently a member of the Administrative Board of the Council of Deans, which represents the 170 medical schools in the United States and Canada. Over the past five years, I served on several committees in AAMC including the Review Committee for the Selection of the Abraham Flexner Award, 2020 Chair of the AAMC Medical Education Award Committee, 2017 Nominating Committee for the Council of Dean Administrative Board, the Committee for the Selection of Administrative Fellows in the Council of Deans. I am also a member of the AAMC's Group on Diversity and Inclusion, Group on Education Affairs, and the Group on Student Affairs.

Executive Leadership in Academic Medicine (ELAM): ELAM is an executive program which provides an intensive one-year fellowship for leadership training aimed at expanding the national pool of women for leadership positions in academic medicine, dentistry, public health, and pharmacy. I completed the year-long executive leadership training in 2005-2006, and I have since been active in ELAM through service on several committees. I serve on the National Advisory Committee and the Selection Committee.

Conclusion

Serving as Vice Chancellor for Health Sciences and the Mark and Pam Rubin Dean of UCR School of Medicine has been one of the most rewarding aspects of my career. Despite the challenges of restructuring, building and growing a newly established medical school, I remained confident that key members of UCR's leadership, SOM faculty, and staff were ready and willing to step forward to work towards a standard of excellence that would make us proud. So many of the SOM stakeholders are passionate about the SOM's mission—To train a diverse physician workforce and develop programs in research and clinical care to serve the people of the Inland Empire, and the mission aligns with my values and my commitment to serve underserved populations.

Over the past 5-years, we achieved full LCME accreditation of the medical school, addressed the SOM's infrastructure shortcomings, secured additional ongoing funding from the State as well as funding to build a new SOM Education building, and implemented a strategic plan that enabled all departments and units to align with the SOM's mission and goals. Equally important, we invested in strategies which enabled us to enhance faculty and staff development; foster and integrate diversity, equity and inclusion, as well as enhance the engagement of faculty and staff. We are now leveraging all of the changes, accomplishments and opportunities to fulfill our 2020-2025 Strategic Plan for Sustainability.

This has been a challenging but rewarding journey that would not have been accomplished without the contributions of faculty, staff and students. We have come far together and we epitomize the African Proverb:

“If you want to go fast, go alone; if you want to go far, go together.”

Appendix

- School of Medicine Organizational Chart
- School of Medicine Strategic Plan for Sustainability 2020-2024
- Center for Healthy Communities Impact Report 2018-2019
- Center for Healthy Communities Impact Report 2019-2020