

Michael V. Drake, MD

President

March 30, 2023

Office of the President 1111 Franklin St. Oakland, CA 94607

The Honorable Nancy Skinner Chair, Joint Legislative Budget Committee

1020 N Street, Room 553 Sacramento, California 95814

university of california. edu

Dear Senator Skinner:

Berkeley
Davis
Irvine
UCLA

Merced Riverside San Diego San Francisco Santa Barbara Santa Cruz

Alcocer would be pleased to speak with you. David can be reached by telephone at (510) 987-9113, or by email at <a href="mailto:David.Alcocer@ucop.edu">David.Alcocer@ucop.edu</a>.

Pursuant to Section 16(d) of the 2013 Budget Trailer Bill (AB 94, Chapter 50,

Statutes of 2013), enclosed is the University of California's Progress Report to the

Legislature on the School of Medicine at the University of California, Riverside.

If you have any questions regarding this report, Associate Vice President David

Sincerely,

MEDICAL CENTERS

Davis Irvine UCLA San Diego San Francisco

NATIONAL LABORATORIES

Lawrence Berkeley Lawrence Livermore Los Alamos

DIVISION OF AGRICULTURE AND NATURAL RESOURCES

Michael V. Drake, MD

President

**Enclosure** 

cc: Senate Budget and Fiscal Review

The Honorable John Laird, Chair

Senate Budget and Fiscal Review Subcommittee #1

(Attn: Mr. Christopher Francis) (Attn: Ms. Jean-Marie McKinney) The Honorable Kevin McCarty, Chair Assembly Budget Subcommittee #2

(Attn: Mr. Mark Martin) (Attn: Ms. Sarah Haynes)

Mr. Hans Hemann, Joint Legislative Budget Committee

Ms. Erika Contreras, Secretary of the Senate

Ms. Amy Leach, Office of the Chief Clerk of the Assembly Ms. Sue Parker, Office of the Chief Clerk of the Assembly Ms. Tammy Weis, Office of the Chief Clerk of the Assembly

Mr. Chris Ferguson, Department of Finance Mr. Jack Zwald, Department of Finance Page 2

Ms. Gabriela Chavez, Department of Finance
Mr. Gabriel Petek, Legislative Analyst Office
Ms. Jennifer Pacella, Legislative Analyst Office
Chancellor Kim A. Wilcox, UC Riverside
Vice Chancellor Gerry Bomotti, UC Riverside
Dean Deborah Deas, UC Riverside
Chief of Staff and Assistant Dean Linda Reimann
Provost and Executive Vice President Katherine S. Newman
Executive Vice President and Chief Financial Officer Nathan Brostrom
Executive Vice President Carrie L. Byington, MD
Associate Vice President Zoanne Nelson
Senior Vice President Brent Colburn
Associate Vice President David Alcocer

Associate Vice President and Director Kathleen Fullerton

### UNIVERSITY OF CALIFORNIA

# Progress Report on the School of Medicine at the University of California, Riverside

Response to Item 6440-001-0001 of Section 2.00 of the Budget Act of 2013-14 states:

"On or before April 1 of each year, the University of California shall provide progress reports to the relevant policy and fiscal committees of the Legislature pertaining to funding, recruitment, hiring, and outcomes for the School of Medicine at the University of California, Riverside. Specifically, the report shall include, but not be limited to, information consistent with the published mission and vision for the School of Medicine at the University of California, Riverside, in all of the following areas:

- (1) The number of students who have applied, been admitted, or been enrolled, broken out by race, ethnicity, and gender.
- (2) The number of full-time faculty, part-time faculty, and administration, broken out by race, ethnicity, and gender.
- (3) Funding and progress of ongoing medical education pipeline programs, including the UCR/UCLA Thomas Haider Program in Biomedical Sciences.
- (4) Operating and capital budgets, including detail by funding source. The operating budget shall include a breakdown of research activities, instruction costs, administration, and executive management.
- (5) Efforts to meet the healthcare delivery needs of California and the inland empire region of the state, including, but not limited to, the percentage of clinical placements, graduate medical education slots, and medical school graduates in primary care specialties who are providing service within California's medically underserved areas and populations.
- (6) A description of faculty research activities, including information regarding the diversity of doctoral candidates, and identifying activities that focus on high priority research needs with respect to addressing California's medically underserved areas and populations."

### I. EXECUTIVE SUMMARY

The School of Medicine at the University of California, Riverside (UCR SOM) opened in 2013 as the first public M.D.-granting medical school to open in California in over 40 years. It has a specific mission to train a diverse physician workforce to serve Inland Southern California (Riverside, San Bernardino, and Imperial counties) and to deliver programs in clinical care and research that address the needs of this medically underserved region, which according to the California Health Care Foundation, has the greatest shortage of primary care and specialist

physicians of any region in California<sup>1</sup>. In its first ten years, the UCR SOM has been successful in recruiting and training a culturally competent and diverse student body, and in expanding residency programs in the region to encourage trainees to remain in the area upon completion of training. The UCR SOM is engaging in research that is targeted toward improving the health of people living in the region, and has launched and expanded its clinical enterprise, UCR Health.

The State of California provided the UCR SOM with \$15 million base funding in 2013 to launch the first phase of the establishment of the medical school with an initial class size of 50 students. The School currently has 341 M.D. students, 40 Ph.D. students, and 22 students pursuing an M.S. in Biomedical Sciences. In addition, the UCR SOM sponsored graduate medical education programs have a total of 137 residents and fellowship trainees. To fully deliver on its mission, the UCR SOM aspires to increase enrollment to 500 medical students over the coming years. This requires an increase in capital and operating funds, as well as an increase in reliable training experiences at local affiliate sites. The UCR SOM is now on a path toward achieving this growth thanks to the leadership support and following investments from the University of California, the California Legislature, and the Governor:

- 1) Capital needs were addressed through the State Budget Act of 2019, which authorized funding to build a new School of Medicine education and administration building on the UCR campus to accommodate this increased enrollment.
- 2) In the 2020 State Budget, Governor Gavin Newsom included \$25 million in new ongoing annual operating funding for the UCR SOM. The COVID-19 pandemic reinforced the need to address healthcare disparities, and the final budget approved in July 2020 included the full \$25 million in additional operating funding.
- 3) The State Budget Act of 2021 included one-time appropriations of \$25 million to support and expand the UCR SOM (SB 170 (Skinner)), and \$10 million for the exploration of Acute Care Teaching Hospital partnerships or a hospital acquisition (SB 129 (Skinner)). Both one-time appropriations are based on an implementation plan of 3-5 years. These funds will be spent in support of academic and clinical training expansion through FY2025/26.

Together, these investments will support expanded enrollment and operational costs for the UCR SOM.

The School faces challenges in securing a stable clinical training platform for both undergraduate medical education (UME) and graduate medical education (GME). While many medical students rotate through the UCR Health ambulatory clinics, the majority of training occurs through 17 major affiliation agreements with hospitals and healthcare facilities in the region. While discussions are ongoing, none of the current partners have committed to the necessary increase in clerkship training spaces that would be required to achieve this growth to 500 total students.

UCR-sponsored residency and fellowship programs are successfully addressing the physician shortage in the inland Southern California region. As UCR SOM grows, it aspires to open new programs in additional specialties that will further address the needs of this underserved

<sup>&</sup>lt;sup>1</sup> <u>California Health Care Almanac, "California Physicians: A Portrait of Practice"</u>, Report of the California Health Care Foundation, March 2021.

region. However, the school has struggled to secure committed and long-term hospital partners. Many of the hospital facilities in the region choose to sponsor their own residency training programs, and while UCR SOM faculty participate in several of these programs, UCR does not have the ability to control the program quality and academic rigor.

UCR continues to pursue a range of strategies to address these challenges. In a desired future state, UCR would have operational control of facilities necessary to support its core training programs, while continuing to utilize other existing clinical facilities in the Inland Empire for specific, but limited, training opportunities. This would give UCR a level of quality control and regulatory compliance with its training programs that it currently lacks, and which has become increasingly important to the medical school's long-term success.

### II. BACKGROUND AND APPROACH

The UCR SOM has a mission distinctive among U.S. medical schools: to expand and diversify the physician workforce in Inland Southern California and to develop research and healthcare delivery programs that will improve the health of the people living in the region. Inland Southern California – a geographically large, ethnically diverse, and rapidly growing region of 4.64 million people – has barely half of the primary care doctors it needs. There are only 41 primary care physicians (PCPs) for every 100,000 people (as compared to the recommended ratio of 60-80 PCPs per 100,000 according to the California Health Care Foundation), and the region is underserved in many medical specialties as well. Inland Southern California performs poorly in relation to most other California regions in many measurable health outcomes, such as diabetes and coronary heart disease.

Unlike the five other academic medical centers in the University of California system, the UCR SOM does not own a hospital, and does not have access to robust clinical funds flow to help support its educational mission. As a community-based school of medicine, the UCR SOM partners with community hospitals and other medical providers across the Inland Southern California area to provide training locations for medical students and residents. As a result, the School faces an array of distinct challenges, which are outlined above.

The School's clinical enterprise – UCR Health – provides an additional training platform for students and residents, while also increasing the numbers of physicians in primary care and other medical subspecialties lacking in the region.

To fully respond to the physician shortage and healthcare needs in Inland Southern California, the UCR SOM developed a focused, community-based approach to its student recruitment and admissions, curricula, research activities, and clinical enterprise. Priorities include:

- 1) **Student recruitment focused on the Inland Southern California region.** Students with ties to the Inland Empire community are much more likely to remain in the area to practice upon completion of training.
- 2) Medical education highlights issues that are relevant to and prevalent in the community. The curricula focus on care for the underserved, ambulatory settings,

<sup>&</sup>lt;sup>2</sup> <u>California Health Care Almanac, "California Physicians: A Portrait of Practice"</u>, Report of the California Health Care Foundation, March 2021.

- prevention, wellness, chronic disease management, health disparities, and cultural competence.
- 3) Expansion of graduate medical education (GME) opportunities in the region in partnership with community providers. The best predictors of a physician's ultimate practice location are where they grow up (or have important family or community ties) and where they complete residency training. The UCR SOM has developed GME programs in primary care and other short-supply specialties family medicine, general internal medicine, pediatrics, general surgery, and psychiatry. As UCR SOM grows, it aspires to open new programs in additional specialties that will further address the needs of this underserved region.
- 4) Scholarship Award programs that provide access to medical education and encourage physicians to remain in the region. The UCR SOM's Mission Scholarship Award program provides an enrollment incentive for students by alleviating medical school debt, provided students remain in Inland Southern California following graduation and completion of residency training. Scholarships are awarded solely to students committed to practicing medicine in one of the following disciplines - Pediatrics, Family Medicine, General Internal Medicine, OB/GYN, General Surgery, Emergency Medicine or Psychiatry. For recipients who meet the above requirements, their award becomes final after the individual practices medicine in the Inland Empire for five years (following residency training), in one of the aforementioned disciplines. Failure to meet these requirements automatically results in the conversion of the scholarship award into a loan that must be repaid. One hundred one currently enrolled medical students are recipients of these scholarships, which in total are valued at almost \$2.9 million. Mission Awards are funded by the UCR SOM, private individuals, and various philanthropic foundations, and the medical school is continuing to raise external funds to establish additional scholarships.
- 5) Pathway programs that increase access to medical school for students who may be educationally or economically disadvantaged. A robust set of programs that span middle school to undergraduate levels are designed to help more of the region's students become competitive applicants for admission to medical school. These programs have served over 2,000 students in 2022 in Riverside and San Bernardino counties.
- 6) Research programs that prioritize community-engaged research and address issues that are relevant to the community. The UCR SOM's Department of Social Medicine, Population and Public Health, Center for Health Disparities Research, and the Center for Healthy Communities are actively engaged with research that is co-led and co-developed by community members.
- 7) Expansion of the UCR Health clinical enterprise. UCR Health has expanded access to primary care and has six clinic locations, located from Downtown Riverside to La Quinta in the eastern Coachella Valley. Additionally, UCR Health has added specialty physicians in areas such as neurology/multiple sclerosis, minimally invasive gynecologic surgery, and pain management, increasing access to care that was previously limited in the community. In 2023, UCR Health will open Hulen Place, a clinic to serve the unhoused population in the city of Riverside.

### III. STUDENT RECRUITMENT AND MATRICULATION

## A. Recruitment and Application Process

Recruitment activities focus heavily on schools located within Inland Southern California, including high schools and community colleges involved in UCR's pipeline programs and four-year institutions such as California State University, San Bernardino. Additionally, up to 24 of the medical school seats are reserved for students who earn their bachelor's degree at UC Riverside – maintaining the original charter of UCR's former UCLA/UCR Thomas Haider two-year medical education program to recruit, admit, and support students from UCR who aspire to become physicians.

UCR SOM's admissions process uses a holistic review approach to selecting outstanding future physicians who are most likely to fulfill the school's mission. The UCR SOM applicants apply through the American Medical College Application Service. For the tenth class of 81 medical students (Class of 2026), application statistics include:

<b>Academic Year 22/23 Admissions Statistics</b>	
Total Applications Received	6,267
Completed Secondary Applications Received	4,817
Candidates Interviewed	295
Offers of Admission	179
Matriculants	81

The UCR SOM has a Conditional Admission Program for promising UCR undergraduates who would benefit from an extra year of preparation prior to medical school. Additionally, an Early Admissions Program is available for applicants to the Thomas Haider Program (the aforementioned 24 reserved seats). The latter program is designed to accept the top applicants before they apply to other medical schools and commit them to the UCR SOM.

### **B.** Medical Student Enrollment

The UCR SOM has recruited ten classes of high-quality, diverse students. The current first-year class is composed of 81 matriculants: 55% are female, 39% self-identify as being underrepresented<sup>3</sup> in medicine. By comparison, AAMC national enrollment data<sup>4</sup> for 2022-23 medical school matriculants indicates that 54% are female and 21% self-identify as being underrepresented in medicine. In addition, 60% of students in the current first-year class are from socioeconomically and/or educationally disadvantaged backgrounds, approximately 51% have ties to Inland Southern California, and 39% are the first in their family to complete a bachelor's degree. Further demographic characteristics are illustrated in the following tables:

<sup>&</sup>lt;sup>3</sup> Per the AAMC definition of "Underrepresented in medicine" that refers to those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population, these students self-identified as being Black/African-American, LatinX, American Indian/Alaska Native, or Native Hawaiian/Pacific Islander.

<sup>&</sup>lt;sup>4</sup> <u>2022 FACTS: Enrollment, Graduates, and MD-PhD data</u>. AAMC, October 2022. https://www.aamc.org/data-reports/students-residents/interactive-data/2022-facts-enrollment-graduates-and-md-phd-data

Gender for 2022 Entering Class of the UCR School of Medicine									
	Applicants	Admits	Matriculants						
Female	3384	103	45						
Male	2591	69	33						
Gender Non-conforming	66	3	1						
Gender Identity Blank	226	4	2						

Total Enrollment Class of 2026: 81 Students

Race/Ethnicity for 2022 Entering Class of the UCR School of Medicine									
	Applicants	Admits	Matriculants						
Asian	2430	45	26						
Mexican American/Hispanic	390	49	13						
African American	417	23	12						
Native Hawaiian/Pacific	15	1	1						
Islander									
White	1650	20	10						
American Indian/Alaska	15	0	0						
Native									
No response	486	7	4						
Other	357	7	5						
Multiracial	507	27	10						
Totals	6267	179	81						

Total Enrollment Class of 2026: 81 Students

Notes: Admission and matriculation data were analyzed from students' self-reported application information; "Filipino" identification was included in "Asian".

### IV. FACULTY AND ADMINISTRATION

Achieving diversity among its faculty and staff is crucial to the success of the School of Medicine and the attainment of its mission. The UCR SOM aims to attract and retain a diverse and talented workforce that will contribute to the University's goals, mission, and vision. The UCR SOM also seeks to recruit employees who are from disadvantaged backgrounds (socioeconomically and/or educationally), speak English as a second language, completed high school in the region (preferably from medically underserved areas), and/or are first-in-family to attend college. Demonstrated scholarly, educational, or service contributions to diversity is also built into the recruitment process and evaluated as part of the academic hiring process.

Guidelines from the University of California Office of the President enable search committees to give special consideration to a number of factors in faculty and academic appointments. These include, but are not limited to:

- A candidate's exceptional service to increase science participation by underrepresented groups
- Acknowledging barriers facing individuals underrepresented in science careers as evidenced by a candidate's life experiences and educational background
- A candidate's significant experience teaching students who are underrepresented in the sciences
- An individual's potential to bring to their research the creative critical discourse that comes
  from their non-traditional educational background or training, and/or their experience as a
  member of a group underrepresented in science

Once appointed to the faculty, the UCR SOM strives to provide a supportive and collegial environment, in part through mentorship by peers both within and outside of the medical school. Both academic divisions in the medical school, Biomedical Sciences and Clinical Sciences, provide newly appointed and junior faculty members mentorship to assist them in navigating local systems and culture and to support their scholarly success. UCR SOM provides a new faculty orientation on a bi-annual basis and an extensive array of faculty development workshops that cover topics such as teaching professionalism, teaching in a flipped classroom environment, navigating the advancement process, creating an inclusive working environment, and interpreting teaching evaluations.

UCR SOM utilizes a number of internal and campus-wide resources that ensure that equal employment opportunity principles are embedded into the school's recruitment, selection, retention, and advancement practices.

The following table provides the demographics of the faculty and administrative staff.

UCR School of Medicine										
Faculty	y and Stat	ff Headcou	nts by Rac	e/Ethnicity	y and Ger	der (Self-F	Reported) *			
		Non-Faculty Academic and Administrative Staff***								
Race/Ethnicity	Male	Female	Decline to state	Total	Male	Female	Decline to State	Total		
American Indian or Alaskan Native	1	0	0	1	0	3	0	3		
Asian	60	29	2	91	56	66	3	125		
Black/African American	9	8	0	17	7	30	0	37		
Decline to State	55	28	53	136	9	11	10	30		
Hispanic	15	6	1	22	29	128	4	161		
Native Hawaiian or Pacific Islander	0	0	0	0	0	1	0	1		
White	69	27	1	97	35	80	6	121		
TOTAL	209	98	57	364	136	319	23	478		

<sup>\*</sup>Statistics current as of 1/12/2023. Does not include community-based clinical teaching faculty or student employees.

Additionally, the UCR SOM has more than 1,000 community-based clinical teaching faculty. These community faculty members serve as attending physicians in residency training, deliver lectures, and teach clinical skills to medical students. An important priority for the upcoming year, made possible by the recent increase in ongoing state funding to support medical student enrollment and teaching, will include efforts focused on the recruitment and hiring of full-time faculty.

## V. MEDICAL EDUCATION OUTREACH AND PATHWAY PROGRAMS

<sup>\*\*</sup>Includes administrative leaders who also hold faculty appointments.

<sup>\*\*\*</sup>Per Diem Physicians with academic appointments counted on paid appointment

Working in partnership with community stakeholders, the UCR SOM's goal is to produce culturally responsive, service-minded physicians who are drawn largely from Inland Southern California and thus more likely to remain in the region to practice. As previously noted, the UCR SOM is continuing the tradition of providing a unique pathway into medical school for UCR students, similar to the former UCR/UCLA Thomas Haider Program in Biomedical Sciences, the precursor to UCR's four-year independent medical school. The Thomas Haider Program at the UCR SOM maintains the charter of its predecessor to recruit, admit, and support students from disadvantaged backgrounds who attend UC Riverside. Up to 24 of the medical school seats each year are filled by students who attend UCR for at least six consecutive academic quarters and complete their bachelor's degree at UCR.

UCR SOM continues to explore efforts to increase American Indian/Alaska Native medical student representation. These efforts included outreach to local tribes through arrange visit to discuss potential collaborations. UCR SOM leadership have identified conferences that have a significant Native American presence or focus, while also meeting with UCR's Native American Resource Center and the Vice Chancellor for Diversity, Equity and Inclusion.

UCR SOM also offers a series of student pathway and outreach programs to increase medical school access for socio-economically and/or educationally disadvantaged students. External funders support these initiatives, including the National Institutes of Health, The California Wellness Foundation, Department of Health Care Access and Information (HCAI), and Riverside Community Health Foundation, as well as a number of generous private donors. The UCR SOM also devotes core personnel resources to coordinating these programs. The current programs are organized into 11 major initiatives (each described below) which create a comprehensive pathway program addressing the needs of aspiring physicians at each stage of their educational pathways.

### **UCR SOM Signature Pathway Programs**

The programs described below are designed to prepare prospective UCR undergraduate applicants for admission to medical school and are focused on students who are socioeconomically disadvantaged, from medically underserved communities, attend low-performing high schools, were raised by single parents, speak English as a second language, and/or are underrepresented in medicine (URiM).

1) JumpStart is a weeklong summer program, and the program goals are to increase students' knowledge and interest in careers in medicine/health, develop academic success strategies for a university-level learning environment, introduce students to college wellness resources, match students with a peer mentor, and familiarize students with life at UCR. Participants completed a team project to create a college wellness resource video and presented videos to their peers at the program symposium. Upon completing the program, all participants were enrolled in the Medical Scholars Program for continued mentorship and academic support. Twenty-five students enrolled in the program and all students successfully completed JumpStart. The program was originally created and implemented as a virtual program for 2020 and 2021. The 2022 JumpStart program was offered in person, on-campus at UCR, with plans to offer again in 2023.

- 2) Medical Scholars Program (MSP) is a comprehensive learning community designed to provide academic, personal, and professional development support for 150 socioeconomically and/or educationally disadvantaged students per year. The academic focus is in the sciences, with the goal of increasing students' graduation rates and promoting their entrance to medical school, graduate school, or other health profession postgraduate programs. Over its 18-year history, over 1,100 students have participated in MSP, of which 61% are URiM. The program graduates 88% of students; and 38% of graduates have enrolled in health professions or research-based graduate programs, including 156 students in medical school.
- and medical Post-Baccalaureate Program (PPP) is a one-year science enhancement and medical school application program for dedicated college graduates from educationally and/or socio-economically disadvantaged backgrounds. In addition to full-time enrollment in upper-division science courses, PPP provides classes to enhance critical thinking, test-taking, and study skills; a structured MCAT preparation course; and seminars on health disparities and the health system. Over the past 14 years, the program has trained 109 post-baccalaureate students, of which 72% are URiM. More than 99% of participants completed the program and met the program's academic contract to achieve a GPA greater than or equal to 3.50. Eighty-nine of the students applied to medical school and 76 students (85%) have completed, are currently enrolled, or are recently accepted into medical school, with 73% of admitted students being URiM. The remaining participants are either studying for the MCAT, currently applying for medical school, or enrolled in other graduate professional programs.

# **Outreach Programs**

UCR SOM has the following outreach programs designed to attract socio-economically disadvantaged students to one of the UCR SOM's pathway programs. During 2022, most of the programs were offered in virtual platforms as a result of the COVID-19 pandemic. A general description of the pathway programming is provided below.

- 1) K-8 Outreach: UCR partners with local Kaiser Permanente Hippocrates Circle Programs to provide student panels and campus tours for 30-60 of their middle school students on an annual basis. The Hippocrates Circle Programs aim to increase diversity of incoming physician population by creating opportunities to expose middle school students to careers in medicine.
- 2) Medical Leaders of Tomorrow is a mentorship program for high school juniors established in 2013 in collaboration with the Riverside County Office of Education and the San Bernardino County Superintendent of Schools. This year the program was offered in a hybrid format and was offered as monthly Saturday sessions for 39 students. The program seeks to: 1) increase students' awareness and interest in careers in the healthcare field; 2) increase students' awareness and interest in higher education; and 3) inform students' parents about the significance, affordability, and accessibility of a college education.
- 3) Health Sciences Partnership (HSP) is a mentoring program in which 20-25 UCR undergraduate pre-health student volunteers (mostly science majors) provide monthly presentations at nine high schools to promote medical career pathways for students. Mentor presentations were delivered virtually and reached 1,000 high school students. Established in 2001, the program has grown to serve three regional areas: Coachella Valley, Riverside, and San Bernardino.

- 4) Future Physician Leaders (FPL) is a nine-week summer internship program providing mentorship for pre-health high school seniors, community college students, and university students. Established in 2009, the program includes four components: a teambased community health project supervised by public health professionals, a Leadership Lecture Series with industry professionals, a symposium in which teams present their health education project, and a mentorship program. In 2022, the program was offered in a hybrid format with a weekly Leadership Lecture Series offered virtually with health professionals. In-person sessions were held at both UCR Palm Desert and UCR with instruction on how students can develop and implement community health projects. The longitudinal educational activities and students' work culminated with the presentations of projects at a symposium in August. Ninety-five participants completed FPL and 23 UCR medical students volunteered as mentors. After successfully completing the program, participants are invited to networking events and professional development workshops and activities.
- 5) Community College Outreach Program (CCOP) provides Riverside and San Bernardino County community college students with the tools and resources necessary to prepare for their medical education, leading to a successful career in healthcare. In Spring semester 2022, Pathway Programs staff conducted online presentations and professional development workshops intended to increase the number of transfer students enrolling at UC Riverside and completing a premedical education. An in-person reception was held for 18 students who completed a pilot mentorship program with UCR medical students in April 2022. UCR SOM, in collaboration with three community colleges, CSU San Bernardino, and five community-based organizations, secured a \$1.87 million grant to establish an Inland Empire Regional Hub of Healthcare Opportunity (IE-RHHO). The IE-RHHO offers the California Medicine Scholars Program (CMSP), a four-year pathway program from community college to medical school. The CMSP student application launched in October 2022 to recruit 50 students to begin the program in January 2023. The community college partners have grown to include six institutions (Chaffey College, College of the Desert, Riverside City College, San Bernardino Valley College, Norco College, and Victor Valley College). Funding for this program is provided by the Foundation for California Community Colleges.
- 6) Bridges to the Baccalaureate (B2B) is an NIH-funded partnership between the UCR SOM and Riverside City College (RCC), providing regularly scheduled information sessions and guest speakers to RCC students (approximately 50 students annually) and a full-time ten-week summer research program for their students. In 2022, 12 students participated in the summer research program. In 2023, 8 students will be matched with a UCR faculty mentor, earn a stipend, and attend weekly professional development workshops.
- 7) Mini-Medical School allows UCR students to develop supervised health education projects reviewed by subject matter experts who include clinicians, public health professionals and medical students. Each health education project aims to inform the community about important health issues. Over 200 students each year present on 30 different topics to audiences in K-12 schools, churches, family engagement centers, and health fairs.
- 8) Health Coach Program is a partnership with Riverside University Health System that trains 30-35 undergraduate volunteers annually as health coaches to support approximately 1,500 patients with chronic conditions (diabetes, dyslipidemia, and hypertension). Health coaches volunteer eight hours per week in clinics and Community

Health Centers operated by the county hospital. Health coaches receive premedical advising and attend professional development workshops given by the SOM faculty and staff.

While not a specific program, the School of Medicine also partners closely with the campus Health Professions Advising Center, which serves all UCR undergraduate students and alumni interested in careers in the health professions. Professional staff and peer mentors are available to guide students and graduates in planning pre-health professions course work, gaining health-related experiences, completing service work, and preparing to apply for admission to graduate and professional programs. Approximately 2,000 UCR undergraduates are served by the Center each year.

### VI. OPERATING AND CAPITAL BUDGETS

# A. Operating Budget

During the first ten years of its existence, necessary operations were subsidized through support from the central UCR campus and initial startup funding from the UC Office of the President. The State Budget Act of 2020 included an additional \$25 million in annual operating support for the UCR SOM, augmenting the \$15 million in annual support approved previously. The State Budget Act of 2021 included one-time appropriations of \$25 million to support and expand the UC Riverside School of Medicine (SB 170), and \$10 million for the exploration of Acute Care Teaching Hospital partnerships or a hospital acquisition (SB 129). Both one-time appropriations are based on an implementation plan of three to five years. These funds will be spent in support of academic and clinical training expansion through FY 2025/26.

The FY 22/23 operating budget appears below, showing total core state funding of \$40 million. In the current fiscal year, this additional funding has been used to: 1) cover existing ladder rank faculty positions and fixed costs, as well as other non-salary expenses previously subsidized by Central Campus, with a total net value of \$7.5M this fiscal year (see summary table below); 2) sustain current operations; 3) add additional faculty and staff in the medical education program; and 4) fund student support areas in an effort to ensure sufficient personnel and infrastructure for teaching and learning activities and 5) to replace depreciated equipment. The UCR SOM projects a Current Year Net Operating Loss of \$3.5 million, which includes expenditures occurring this fiscal year, but will be funded with the carryforward fund from the one-time appropriations from the State Budget Act of 2021 (itemization of this Budget Act funding illustrated under section B below).

# SCHOOL OF MEDICINE OPERATING BUDGET FY22/23 - PROJECTED

(\$ In Millions)

(\$ In Millions)	
Classification	Projected \$ Amount
Revenues	
Core Funds	
State Funds <sup>1</sup>	40.0
SOM Tuition and Other State Funds <sup>2</sup>	5.3
Professional Degree Supplemental Tuition (PDST) Gross	7.6
ICR	1.8
Other Student Fees	.5
Core Funds Total	55.2M
Non-Core Funds	
Clinical - Patient Billing	18.5
Clinical - Professional Services Agreement (PSA)	8.8
GME	10.0
Contracts & Grants (C&G) <sup>3</sup>	12.8
Gifts & Endowments	1.4
Sales & Service	
Non-Core Funds Total	52.0M
Other Transfers <sup>4</sup>	
	-1.5M
Total Revenue	105.7M
Evmonsos	
Expenses Academic Salaries	20.0
	38.8
Staff Salaries	25.0
Employee Benefits	18.2
Salaries and Benefits Total	82.0N
General Supplies and Expenses	35.2
Equipment/Other Inventorial	1.0
Facilities	3.1
Recharge	-12.1
Non-Salary Support Total	27.2N
Total Expenses	109.2N
Net Operating Income/(Loss)	-3.5N
Budget Act of 2021 - Carryforward Funding <sup>6</sup>	9.0M
Adjusted Net Operating Income/(Loss)	5.5M
Footnotes:	
Original \$15M State allocation approved in FY12-13, plus FY20-21 alloc of \$	 25M
<sup>2</sup> Includes 50% tuition paid by medical students (remaining 50% is retained by	
state funds, such as funds allocated directly to faculty, etc.	,
<sup>3</sup> Excludes Indirects.	
<sup>4</sup> Includes projected incremental portion of the 1/3 UC required set-aside. <sup>5</sup> Recharge of \$12.1M represents an assessment on all clinical and GME extern subsequently re-directed (within SOM) to fund UCR Health and centralized GI GME DIO office.	

<sup>6</sup> For illustration purposes only, adding the portion of the \$35M one-time State allocation carryforward budgeted this fiscal year, which is valued at \$9.0M. Details on actual cumulative

Summary of SOM Expenses Previously Subsidized by Campus now included on Operating Budget Above

# SCHOOL OF MEDICINE SCHEDULE OF EXPENSES - PREVIOUSLY PAID BY UCR

(\$ In Millions)

Classification	Projected \$ Amount
Expenses	
Personnel Costs	2.8
Debt Service/OMP	1.4
Other Non-Salary Expenses	4.5
Total Expenses <sup>2</sup>	8.7M
Personnel Costs funded by UCR Central Campus in FY23 <sup>3</sup>	1.2M
Total Expenses after UCR Central Campus funding <sup>1</sup>	7.5M
Footnotes:	

<sup>&</sup>lt;sup>1</sup> These expenses are included in the projected operating budget schedule above.

<sup>&</sup>lt;sup>2</sup> Please note that this expense total will increase proportionally based on costing increases. The incremental change of \$1.7M in FY23 includes new costs to SOM assessed by campus. All campus subsidy costs are reflected in the SOM P&L expense section.

<sup>&</sup>lt;sup>3</sup> UCR Central Campus funded augmentation of personnel costs of \$1.2M, but it is uncertain to UCR SOM whether permanent augumentations will be received going forward.

## B. Budget Act of 2021 Budget Detail Schedules

Budget Act of 2021

**Budget Detail - One-time Appropriations** 

Riverside

**UC Riverside School of Medicine Facilities** 

		FY 2021-22		FY 2022-23		FY 2023-24		Y 2024-25		Y 2025-26		Total
		(Actual)	(	Projected)		Projected)	(	Projected)		Projected)		
One Time Appropriation Revenue		25,000,000		-		-		-		-		25,000,000
Total Budgeted Revenue	\$	25,000,000	\$	•	\$	-	\$	-	\$	-	\$	25,000,000
Payroll Expenses		5,803,387		3,769,319		1,467,788		1,467,788		1,704,352		14,212,634
Supplies and Expenses		49,103		3,166,467		2,165,243		2,165,243		2,165,243		9,711,298
Operation and Maintenance of Plant (OMP)		910,946		64,214		33,636		33,636		33,636		1,076,068
Total Expenditures	\$	6,763,436	\$	7,000,000	\$	3,666,667	\$	3,666,667	\$	3,903,231	\$	25,000,000
Budget Operating Income	\$	18,236,564	\$	(7,000,000)	\$	(3,666,667)	\$	(3,666,667)	\$	(3,903,231)		-
Carryforward	Ś	18,236,564	Ś	11,236,564	Ś	7,569,898	Ś	3,903,231	Ś	-	Ś	

Budget Act of 2021

**Budget Detail - One-time Appropriations** 

Riverside

**UC Riverside School of Medicine Acute Care Teaching Hospital** 

	F			FY 2023-24 FY 2024-25 (Projected)		FY 2025-26 (Projected)		Total		
One Time Appropriation Revenue		10,000,000					-		-	10,000,000
Total Budgeted Revenue	\$	10,000,000	\$	•	\$	•	\$ •	\$		\$ 10,000,000
Payroll Expenses		-				1,223,210	1,223,210		1,223,210	3,669,629
Supplies and Expenses		-				758,443	758,443		758,443	2,275,330
Operation and Maintenance of Plant (OMP)		-		-		18,347	18,347		18,347	55,041
Outside Services/ Subawards		469,599		2,000,000		1,530,401	-		-	2,469,599
Total Expenditures	\$	469,599	\$	2,000,000	\$	3,530,401	\$ 2,000,000	\$	2,000,000	\$ 8,469,599
•										
Budgeted Operating Income	\$	9,530,401	\$	(2,000,000)	\$	(3,530,401)	\$ (2,000,000)	\$	(2,000,000)	-
Carryforward	\$	9,530,401	\$	7,530,401	\$	4,000,000	\$ 2,000,000	\$	-	\$ -

### C. Capital Budget

Prior to the SOM's opening, the UCR campus made a significant investment in two necessary facilities – the School of Medicine Education Building (renovation of the Statistics building constructed in the 1960s) and the School of Medicine Research Building. The budget for these two buildings totaled approximately \$58 million, with funding comprised of campus equity funds (\$24 million from campus discretionary funds and indirect cost recovery), external financing (\$30 million with debt service provided by the campus), and Federal Grant Funds (\$4 million).

The current School of Medicine Education Building provides educational and administrative space, including a remodeled anatomy lab, a small medical simulation laboratory, and space for small-group, problem-based learning sessions and Objective Structured Clinical Examinations. The School of Medicine has a Memorandum of Understanding with the UCR Libraries to provide additional classroom and study space for medical student education. The Center for Simulated Patient Care (CSPC) was developed to expand education space in the Orbach Science Library, which is adjacent to the SOM Education Building I.

of the center is to advance and improve patient care and provider safety. This objective is accomplished by a combination of exploration, team-building opportunities, and analysis of innovative techniques of instruction, treatment, management, communication, and recovery. The CSPC provides the necessary space needed to expand medical simulation and clinical skills training facilities. The project budget was \$7.0 million and funded by campus funds. Construction on this nearly 13,000 gross square feet (gsf) of renovated space began in March 2020 and the CSPC was completed in March 2021.

The School of Medicine Research Building (a \$37 million project) is a three-floor, 58,000-square-foot building. This building served as the initial research platform for the medical school, enabling the recruitment of additional faculty needed to deliver the curriculum to an expanded medical student body at UCR (pre-existing faculty have their laboratories in Webber Hall on the UCR campus). Additional laboratory space for medical school faculty was provided in 2019 in the recently completed Multidisciplinary Research Building (MRB) on campus. Construction of the 180,000 gsf, five-floor building provides wet and dry research laboratories, shared instrumentation, a vivarium, and faculty and administrative support. The MRB building is shared among several UCR schools and colleges and will help accommodate planned growth of the medical school's basic science faculty into the next decade.

Growth in the Division of Clinical Sciences faculty, UCR Health, and of administrative staff has required the medical school to utilize a sizeable portion of the UC Intellicenter Building, located approximately six miles from UCR. This is a University of California-owned building that is also the headquarters of the UCPath Center, the UC's initiative to streamline and centralize human resources and payroll functions. The distance from the School of Medicine and teaching space creates barriers for students, staff, and fragments the overall local learning environment. There are also further existing unmet needs for academic office space for clinical department chairs and clinical faculty.

Unfortunately, the spaces detailed above are not sufficient for the current medical student enrollment and planned future growth, including the School of Medicine's goal of enrolling 125 medical students each year. The State Budget Act of 2019 included language that authorized the University of California to pursue a medical school project at the UCR campus using external financing supported by State General Funds as allowed under Section 92493 et seq. of the Education Code. The campus determined that a maximum project budget of \$100 million was appropriate for the School of Medicine Education Building II (SOM Ed II) in consideration of the School's programmatic space needs. The project is underway and is being delivered through design-build, and the total project budget will be funded by external financing supported by State General Funds. UCR Campus and UCR SOM received approval to initiate planning for this building from the UC Regents Health Services Committee in October 2019 and from the Finance and Capital Strategies Committee in January 2020. Final approval for construction of the new building was given by the UC Regents in March 2021, including the selection of Hensel Phelps Construction/CO Architects as the design-build partner. The LEED platinum-certified SOM Ed II is located south of the current building and will have approximately 57,000 assignable square feet within 90,000 gross square feet. Preliminary construction began in August 2021, and a formal groundbreaking ceremony was held in October 2021. As of this writing, construction is underway and expected to be completed in Summer 2023.

### VII. RESIDENCY TRAINING AND MEETING HEALTHCARE DELIVERY NEEDS

# A. Residency Training

In addition to expanding its student pathway programs, another key strategy for physician retention is creating a broad range of residency training programs. The UCR SOM initially concentrated on developing GME in the primary care and short-supply specialties of general internal medicine, family medicine, primary care pediatrics, psychiatry, and general surgery. Programs in these specialties have been established – sponsored either directly by the School or by hospital affiliates in the region. In addition, fellowship programs have been established and are operating in addiction medicine, child and adolescent psychiatry, gastroenterology, cardiovascular medicine, and interventional cardiology. There are a total of 139 resident and fellow physicians training in UCR-sponsored accredited postgraduate programs for the academic year 2022-2023.

# **Number of Trainees in UCR SOM-Sponsored Training Programs – FY23**

Residency Programs								
Internal Medicine	60							
Family Medicine	16							
Psychiatry	31							
Fellowships								
Addiction Medicine	2							
Fellowship								
Cardiovascular	12							
Child and Adolescent	4							
Psychiatry								
Gastroenterology	5							
Interventional Cardiology	1							
Critical Care	6							
Total	137							

In 2022, UCR SOM-sponsored residencies and fellowships graduated a total of 39 residents in

Since 2016, 170 residents and fellows have completed residencies and fellowships sponsored by the UCR SOM.

The medical school continues to be successful in securing extramural funding to partially support several GME programs through the HCAI-Song-Brown Workforce Training grants and through CalMedForce grants. The medical school also received support in the State Budget Act of 2018 to expand the psychiatry residency program and psychiatric telemedicine in underserved areas.

Sixty-nine individuals, or 98%, of the UCR SOM Class of 2022 graduates matched into residency training programs. For the Class of 2022, 27 graduates (39%) secured residency training in Inland Southern California, including three in UCR internal medicine and psychiatry programs. Sixty-one graduates (87%) remained in California to complete their residency training.

### B. UCR Health

UCR Health, the clinical enterprise of the UCR SOM, is a critical component of both the training platform and resource for meeting regional healthcare needs. UCR Health now comprises six separate clinics in locations across Riverside and the Coachella Valley. In fiscal year 2021-2022 UCR Health clinics provided care for 42,402 patient visits. In October of 2019, UCR Health opened its first stand-alone pediatrics clinic in La Quinta, addressing the shortage of pediatric providers in the eastern part of the Coachella Valley.

### VIII. FACULTY RESEARCH ACTIVITIES

The UCR School of Medicine continues to build on the current research strengths at UCR through the recruitment and retention of clinical and basic science faculty and an enhanced support infrastructure. Faculty are pursuing new medical discoveries and healthcare innovations to serve the needs of the region while training physicians in basic principles of evidence-based medical research and practice. School of Medicine faculty demonstrate success in a broad range of scholarship from traditional "wet-lab" biomedical research to securing grants that support innovation in teaching and healthcare delivery.

Many research activities are organized as specialized centers with goals that align with the School's unique mission:

- The Center for Healthy Communities, established in 2014, pursues research to improve the health of the culturally and economically diverse communities in Inland Southern California.
- The Center for Molecular and Translational Medicine is a multi-disciplinary center that translates basic science findings into diagnostic therapeutics and tools.
- The BREATHE Center (Bridging Regional Ecology, Aerosolized Toxins, and Health Effects) focuses on regional climate modeling, culture and policy studies on (1) air quality and health, (2) environmental justice and health disparities, and (3) health impacts.
- The Center for Glial-Neuronal Interactions is a "brain health" center that focuses on prevention and therapeutic intervention of neurodevelopmental, neurologic, and

- neurodegenerative diseases, such as Alzheimer's disease, autism spectrum disorders and epilepsy, among others.
- The Center for Health Disparities Research was established in July 2019 with a five-year, \$16 million grant from the National Institutes of Health. One of only 13 centers in the nation, this Center brings together environmental scientists, biomedical scientists, and social scientists to study health disparities. In addition, the Center offers pilot grants to UCR researchers interested in working on health disparity projects and provides training and support to the next generation of investigators seeking to develop community-engaged research projects.

The ongoing COVID-19 pandemic has spurred several creative and critical research activities in the School of Medicine. One of the School's Biomedical Sciences research faculty is participating in a University of California Multicampus Research Program (UC MRPI) to study coronavirus viral capsid assembly. Another Biomedical Sciences faculty member has reported on the protein structures of key SARS-CoV-2 components, which will aid vaccine and antiviral drug design. The impact of COVID-19 has been disproportionately severe among minority communities, and the Center for Health Disparities Research has been active in community-based research on this question with our community partners.

Medical school faculty have been successful in competing for research funding from diverse sources including the National Institutes of Health, the National Cancer Institute, Patient-Centered Outcomes Research Institute (PCORI), and private foundations. Examples of grant awards and funding from this academic year include:

- Declan McCole, a professor of biomedical sciences in the School of Medicine, received a three-year grant from the National Institutes of Diabetes and Digestive and Kidney Diseases, a division of the National Institutes of Health, to explore how a certain protective gene's loss of function can increase the risk of infection with SARS-CoV-2, the virus that causes COVID-19.
- UCR received a grant of \$5 million from the California Institute for Regenerative Medicine, the state's stem cell agency, to train young scientists and physicians in stem cell research. The training will be offered through an interdisciplinary program named Training Program to Advance Interdisciplinary Stem Cell Research, Education and Workforce Diversity, or TRANSCEND. Dr. Martín García-Castro, an associate professor of biomedical sciences in the School of Medicine, is one of the associate directors.
- Dr. Sika Zheng received a National Institutes of Health R01 award of just under \$2.5 million to study the functional role of nonsense-mediated mRNA decay (NMD) for the complicated and dynamic process of neurogenesis. Dr. Zheng also founded the Center for RNA Biology and Medicine, a new, multi-disciplinary research center designed to focus on the role RNA plays in biology and medicine. More than 30 UCR faculty from across the campus have membership in the Center.
- Researchers Ann Cheney, Ph.D. and Evelyn Vázquez, Ph.D. in the UCR SOM
  Department of Social Medicine, Population, and Public Health have received \$113,514
  in funding from the Desert Healthcare District and Foundation Board for a project that

will mitigate psychological trauma and mental health disparities in immigrant communities during the COVID-19 pandemic.

The SOM supports a UCR Ph.D. graduate program in Biomedical Sciences and MS graduate degree program with a mission to bridge the gap between basic research and new translational and clinical innovations. Ph.D. students are embedded in the first-year medical school curriculum so that they can learn the same human pathophysiology required to conduct medically translational research. These students are also preparing to be liaisons between practicing clinicians, experimental clinical trials, patient advocates, and basic researchers. Forty students are currently enrolled and of these, 45% are from underrepresented in medicine groups.

### IX. CONCLUSION

The UCR SOM has set its course towards increasing enrollment to 500 total medical students, and towards incrementally building the necessary infrastructure, expanding faculty hires, and addressing other critical needs. The State Budget Act of 2021 provided \$35 million in one-time funding for both the SOM/UCR Health expansion and to explore the future model of UCR's academic health system. With the additional \$25 million in annual operating support authorized in the State Budget Act of 2020, the UCR School of Medicine's ongoing state funding now totals \$40 million. This increase in State funding has allowed the SOM to reduce the need for 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 its patient care mission. With the increased funding, the development of the Center for Simulated Patient Care and the ongoing construction of the School of Medicine Education Building II, the UCR SOM continues its transition to the next phase of growth and development. As the school seeks to increase enrollment to the planned level of 500 medical students, the need to double the capacity for student clinical rotations is a key priority. UCR SOM is exploring multiple strategies to secure this training capacity with existing affiliate partners and through alternative means. Until this challenge is solved, the school will be unable to fully grow as planned, and the ability to expand clinical specialties and residencies will remain severely limited. The School is currently focused on securing an expanded clinical training platform to further support its growth, and to expand medical education opportunities for California students and increase the school's capacity to fulfill its mission of improving the health of people in Southern California (Inland Empire).

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