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April 2, 2014

The Honorable Mark Leno Chair, Joint Legislative Budget Committee 1020 N Street, Room 553 Sacramento, California 95814

Dear Senator Leno:

Pursuant to Section 13313 of the Education Code, enclosed is the University of California's Progress Report on the School of Medicine at the University of California, Riverside.

If you have any questions regarding this report, Associate Vice President Debora Obley would be pleased to speak with you. She can be reached by telephone at (510) 987-9112, or by email at Debora.Obley@ucop.edu.

Yours very truly,

Janet Napolitano Janet Napolitano President

Enclosure

cc: The Honorable Marty Block, Chair Senate Budget and Fiscal Review Subcommittee #1 (Attn: Mr. Joe Stephenshaw) (Attn: Ms. Cheryl Black) The Honorable Das Williams, Chair Assembly Budget Subcommittee #2 (Attn: Mr. Mark Martin) (Attn: Ms. Amy Rutschow) Mr. Michael Cohen, Department of Finance Mr. Mac Taylor, Legislative Analyst's Office Ms. Peggy Collins, Joint Legislative Budget Committee Mr. Gregory Schmidt, Secretary of the Senate Ms. Tina McGee, Legislative Analyst's Office Ms. Amy Leach, Office of the Chief Clerk of the Assembly Mr. Jim Lasky, Legislative Counsel Bureau Mr. E. Dotson Wilson, Chief Clerk of the Assembly Chancellor Kim Wilcox **Executive Vice President Nathan Brostrom** Senior Vice President Dan Doolev Senior Vice President John Stobo Vice President Patrick Lenz Associate Vice President and Director Steve Juarez Associate Vice President Cathryn Nation Associate Vice President Debora Obley **Executive Director Jenny Kao Deputy Marsha Sato**

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

April 2014

Legislative Report



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

Response to Section 13313 of the Education Code, which 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, 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 health care 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. INTRODUCTION

A. History and Future Enrollment Plans

The University of California, Riverside's aspirations to develop a full, four-year medical school began over three decades ago, when the two-year medical education partnership with UCLA was firmly established. That ambition advanced to a full-fledged planning effort in 2003, resulting in the UC Board of Regents approving establishment of the UC Riverside (UCR) School of Medicine in 2008. Vice Chancellor of Health Affairs and Founding Dean G. Richard Olds, M.D., was appointed in 2010 and the medical school prepared for preliminary accreditation through the Liaison Committee on Medical Education (LCME). UC Riverside received its initial start-up

funding in the Budget Act of 2010, which required the University of California to redirect \$10 million from its existing resources to the UCR School of Medicine.

Midway through the accreditation process, as a result of the State budget crisis, UCR was unsuccessful in securing new state funding in 2011 and consequently failed in its first try to gain preliminary accreditation. Ensuing fundraising by the UCR medical school secured non-State funding in the amount of \$100 million over 10 years, including \$2 million per year from the UC system. The UC Office of the President additionally secured a \$30 million line of credit for the School. The new financial model did not rely on new funding from the State of California. The LCME subsequently granted preliminary accreditation in the fall of 2012, but stated its intention to monitor the school's financial status. The 2013-14 State Budget Act, adopted in June 2013, included \$15 million in State funding as part of UC's budget augmentation, providing ongoing support to the first public medical school to be established in California in more than four decades. The School is currently preparing for the next step in the accreditation process for new schools, called provisional accreditation, anticipated to occur in 2015. Ultimately, the School will become fully accredited by the LCME, the status currently held by UC's five other, well-established medical schools, in 2017.

With preliminary accreditation, the UCR School of Medicine enrolled its inaugural class of 50 medical students in August 2013. At this time, total enrollment in the School is comprised of these 50 medical students and 16 Ph.D. students. The School is currently admitting its second class of 50 medical students, and will continue enrolling 50 new students each year until it reaches a total enrollment of 200 medical students. UC Riverside has future plans to expand medical student enrollment, contingent upon approval of the LCME. The first time such an approved expansion could occur is 2016.

B. Mission and Approach

The UCR School of Medicine has a mission distinctive among U.S. medical schools. Its mission is to expand and diversify the physician workforce in Inland Southern California and to develop research and health care delivery programs that will improve the health of underserved populations living in the region. Inland Southern California – a geographically large, ethnically diverse, and rapidly growing region of 4.3 million people – has barely half of the primary care doctors it needs and, according to the California HealthCare Foundation, Riverside County is the only California county of more than 1 million people to have fewer than 100 M.D. physicians in all specialties per 100,000 people. The region also performs poorly in relation to most other California regions in nearly every measurable health outcome. In undergraduate medical education (UME, or medical student education) and graduate medical education (GME, or residency training), the school has chosen to focus on primary care and other short-supply specialties – family medicine, general internal medicine, primary care pediatrics, general surgery, psychiatry and OB/GYN. The UME and GME curricula thus focus on care for the underserved, ambulatory settings, prevention, wellness, chronic disease management, health disparities, and cultural competence.

The medical school's mission-based scholarship program is one example of the School's strategies for addressing workforce shortages by retaining UCR-trained physicians in the region.

This scholarship program provides an incentive for students to reduce medical school debt while remaining in Inland Southern California for at least five years following medical school education and residency training. Should the recipients of the mission-based scholarships practice outside of the region before the end of those five years, the scholarships become repayable loans. Two students in the inaugural class are recipients of these scholarships – one funded by First 5 Riverside for pediatrics practice in Riverside County and one funded by a Riverside couple for family medicine practice in Riverside County. For the class entering in 2014-15, the school plans to establish seven additional scholarships from its funds and to continue fundraising to establish additional mission-based scholarships. These new scholarships will be awarded to students who commit to practicing in Riverside, San Bernardino or Imperial counties in any of the short-supply specialties.

Responding to the physician shortage in Inland Southern California requires more than building a medical school. Consequently, the UCR School of Medicine is executing two additional strategies that will capitalize on the two primary drivers of where a physician practices – where physicians grow up and where they complete residency training. A continuum of student pipeline programs, currently spanning middle school through postbaccalaureate studies, is designed to help more of the region's students become eligible for medical school (see Section IV). UCR is working with healthcare partners in the community to establish new residency programs that physicians need in order to become fully independent and board certified (see Section VI). These include training programs in the primary care specialties of general internal medicine, family medicine and primary care pediatrics, as well as the short-supply specialties of general surgery, psychiatry and OB/GYN.

II. 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 the School's student pipeline programs (see Section IV) and four-year institutions such as California State University, San Bernardino. This regional focus is important for meeting the mission of the medical school to train and retain physicians for this area of California. Additionally, because up to 24 of the 50 medical school seats are reserved for students who earn their bachelor's degree at UC Riverside (see page 5), campus undergraduates learn a great deal about the UCR School of Medicine before they apply, particularly through the undergraduate-focused pipeline programs FastStart and the Medical Scholars Program (described in Section IV). Finally, medical school staff yearly attend a variety of medical student recruitment events, mostly in Southern California, but including one of the nation's largest recruiting events, the UC Davis Pre-Medical and Pre-Health Professions National Conference, where more than 100 medical schools are represented and some 300 workshops presented to students interested in the health professions.

Upon receiving preliminary accreditation from the LCME in October 2012, the UCR School of Medicine immediately began accepting applications – five months behind other U.S. medical schools – for the charter medical student class that enrolled in August 2013. The medical school

admissions process uses a holistic review of applicants to select outstanding future physicians who are most likely to fulfill the mission of the school.

Applicants to the UCR School of Medicine submit an application through the American Medical College Application Service (AMCAS). The UCR School of Medicine Admissions Committee evaluated 2,423 applications for the inaugural class, invited 725 applicants to submit secondary applications, and interviewed 212 applicants using the Multiple Mini-Interview (MMI) format. In this process, applicants move through a two-hour circuit of 10 interviews within a cluster of adjacent closed rooms ("stations"). At each station, the applicant is given two minutes to review a standardized question or scripted scenario (with relevance to the UCR medical school mission), followed by an eight-minute period of discussion with an interviewer who scores the applicant's performance on a seven-point scale. The stations and specific prompts used in the MMI process are designed to assist the Admissions Committee in evaluating some of the applicants' personal attributes. This core set of criteria includes assessment of the following: a) integrity and ethics, b) reliability and dependability, c) service orientation, d) social and interpersonal skills, e) capacity for improvement, f) resilience and adaptability, g) cultural competence, h) oral communication, and i) teamwork. These attributes will help determine the potential for applicants to succeed in fulfilling the mission of the School of Medicine.

The Committee met to consider each interviewed applicant and to rank him/her for admission using a holistic process which considered all factors – background, disadvantaged status, how the student has overcome barriers, academic performance, breadth and depth of extracurricular activities, leadership experience, community service, clinical experience, and commitment to mission of the UCR School of Medicine. Eighty-three applicants were offered admission to the UCR medical school (as well as other medical schools), with 48 acceptances; the class was ultimately filled by adding two applicants from the waiting list. This is a very high acceptance rate for a new school – even for an established school – strongly suggesting students chose UCR based on its unique mission.

B. Medical Student Enrollment 2013-14

The current class composition of 50 students is 52% female, 20% self-identified as being underrepresented in medicine (Latino, African American and Native American), and 44% identified as disadvantaged (e.g., English is a second language, first in family to complete college, educated in low-performing high school, socio-economically disadvantaged, and/or grew up in a medically underserved community). Twenty-nine of the students speak Spanish fluently as their native language or an additional acquired language. Half of the class has ties to Inland Southern California – because they grew up or attended high school in the region, earned their bachelor's degree at UCR, or have family ties to the region.

Demographic characteristics are illustrated in the table that begins on the next page.

Race and Ethnicity for 2013 Entering Class of the UCR School of Medicine (Self-Reported)							
	Applicants	Admits	Matriculants	Applicants	Admits	Matriculants	
	Female	Female	Female	Male	Male	Male	
American Indian/Alaska Native	8	0	0	9	0	0	
Cuban	3	0	0	4	0	0	
Asian	433	14	5	524	16	11	
Mexican American	74	5	3	76	8	5	
African American	102	2	1	71	4	1	
Native Hawaiian/Pacific Islander	6	0	0	9	0	0	
White	347	13	11	449	7	5	
No response	117	9	5	147	2	2	
Foreign	0	0	0	0	0	0	
Multi-Race	18	1	1	26	2	0	
Totals	1,108	44	26	1,315	39	24	
TOTAL FIRST-YEAR ENROLLMENT: 50 Students							

Notes: Applicant data as reported to AMCAS during application submission. Admission and matriculation data was analyzed from students' self-reported application information; Filipino was included with Asian and other Hispanic with Mexican American.

In addition to the 50 students enrolled in the inaugural class of the UCR School of Medicine, there are 28 second-year students at UCR this academic year who are enrolled in the UCR/UCLA Thomas Haider Program in Biomedical Sciences. At the end of this academic year, students in this class will transfer to the David Geffen School of Medicine at UCLA to complete their third and fourth years of medical school and receive their M.D. degrees from UCLA. Going forward, all medical students enrolled at UCR will complete all four years of medical school in Riverside, with their M.D. being conferred by UCR. While the UCR/UCLA Thomas Haider Program in Biomedical Sciences is being phased out, in its place the UCR medical school has established the Thomas Haider Program at the UCR School of Medicine, which continues to provide a unique pathway to medical school exclusively for UCR undergraduates. Section IV contains additional information about this program.

III. FACULTY AND ADMINISTRATION

Providing leadership for faculty recruitment is the Associate Dean for Academic Affairs, with the support and collaboration of all of the medical school's executive leadership, as well as the medical school's academic personnel unit. The Associate Dean oversees the advancement and timely completion of academically-related diversity and affirmative action initiatives and for coordination with relevant systemwide initiatives. Given the mission of the UCR medical school and the desire to see the faculty, as well as the student body, reflect the cultural, socioeconomic, and ethnic diversity of the region the medical school aims to serve, all faculty searches seek to attract as many faculty applicants underrepresented in medicine as possible. This has been achieved through the use of advertising in publications aimed at such faculty, by use of contacts within professional organizations and by word-of-mouth or written encouragement to known potential candidates, as well as by advertising positions in widely-read journals such as Science, Nature, and Academic Medicine, and to professional organizations such as the Society of General Internal Medicine, the Association of American of Medical Colleges, the Society of Teachers of Family Medicine and the Association of Program Directors in Internal Medicine. The School of Medicine also seeks to recruit and retain faculty who are from disadvantaged backgrounds (socioeconomically and/or educationally); speak English as a second language; completed high school in the region (San Bernardino, Riverside or Imperial counties, preferably from medically underserved areas); and/or are first-in-family to attend college.

UCR has a Vice Provost for Faculty Equity and Diversity to help UCR recruit and retain highquality, diverse faculty members. In conjunction with the Office of Faculty and Staff Affirmative Action, the Vice Provost helps search committees and departments develop a diverse pool of applicants for positions, and identify highly-qualified candidates. The Vice Provost also offers assistance with reducing barriers for hiring members of underrepresented groups and suggests ways that biases in the recruitment and treatment of faculty members can be overcome. These services include a "toolkit" to assist campus units and search committees implement best practices for faculty recruiting at the following URL:

http://academicpersonnel.ucr.edu/policies_and_procedures/Academic%20Hiring%20Toolkit.pdf.

Retention of a diverse faculty will be enhanced by faculty mentoring programs. Although mentors among the medical school faculty will be appointed, experience has shown that mentees often feel more comfortable discussing career issues with faculty outside of their home personnel unit. For this reason, faculty are encouraged to join mentoring programs on the general campus. There are two programs on campus appropriate for young medical faculty, one operated through the Vice Provost for Academic Personnel (described at http://fmp.ucr.edu/) and another operated through the women's faculty association. Both mentoring programs are intended to help new faculty members adjust to their new environment.

The School of Medicine also aims to attract and retain a diverse and talented workforce that will contribute to the university's goals, mission and vision. The UCR School of Medicine's hiring practices include the utilization of a number of internal and campuswide resources that ensure equal employment opportunity principles are embedded into the school's recruitment, selection, retention and advancement practices.

The following table illustrates the demographics of the faculty and administrative staff in the School of Medicine.

UCR School of Medicine								
Faculty and Staff Headcounts by Ethnicity and Gender (Self-Reported)*								
	Faculty**		Academic and					
				Administrative Staff				
Ethnicity	Male	Female	Total	Male	Female	Total		
American Indian or Alaskan Native	0	0	0	0	0	0		
Black/African-American	3	2	5	2	11	13		
Chinese/Chinese-American	2	1	3	1	1	2		
Filipino/Pilipino	0	0	0	1	3	4		
Hispanic	1	0	1	0	0	0		
Japanese/Japanese-American	0	0	0	0	2	2		
Latin American/Latino	0	1	1	1	1	2		
Mexican/Mexican-American/Chicano	2	0	2	4	21	25		
Other Asian	3	2	5	0	0	0		
Other Spanish/Spanish-American	0	0	0	0	1	1		
Pakistani/East Indian	1	1	2	1	3	4		
Unknown	1	0	1	1	0	1		
White	14	11	25	8	27	35		
TOTAL	27	18	45	19	70	89		

*Statistics current as of February 13, 2014. Does not include volunteer clinical faculty or student employees. **Includes administrative leaders who also hold faculty appointments.

Additionally, by the conclusion of the 2013-14 academic year, the School of Medicine anticipates having approximately 235 "volunteer" clinical faculty. Volunteer clinical faculty from the community have a variety of responsibilities teaching medical students and residents. These responsibilities include precepting medical students, serving as attending physicians in residency training, delivering selected lectures to medical students, and teaching clinical skills to medical students.

IV. MEDICAL EDUCATION OUTREACH AND PIPELINE PROGRAMS

The UCR School of Medicine is expanding upon a series of student pipeline programs that focus on increasing access to medical school for socio-economically and/or educationally disadvantaged students. Pipeline programs are comprised of activities designed to improve the competitiveness of students for entry into medical school. These activities include academic and career enrichment strategies, development of learning communities, physician shadowing, parental involvement and mentored community service. Working in partnership with community stakeholders, the medical school intends 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. The importance of drawing students from the communities surrounding UCR is underscored by a study completed by researchers in the UCLA medical school and published in the American Journal of Public Health. The study found that medical schools and clinics could increase the number of primary care physicians in medically underserved areas by selecting and encouraging students from these communities, as these students demonstrate a strong identification and sense of responsibility to their communities. To

that end, the UCR School of Medicine is continuing the tradition of providing a unique pathway into medical school for UCR students, similar to the UCR/UCLA Thomas Haider Program in Biomedical Sciences which is being phased out. The new Thomas Haider Program at the UCR School of Medicine maintains the charter of its predecessor to recruit, admit and support students from underrepresented groups who attend UC Riverside. Up to 24 of the 50 seats each year are filled by students who attend UCR for at least six consecutive quarters and complete their bachelor's degree at UCR. Students admitted to the Haider Program will complete all four years of medical school at UCR, with the M.D. degree awarded by UC Riverside.

Several external funders are supporting these initiatives, including Kaiser Permanente Southern California (\$3 million over two years), the Office of Statewide Health Planning and Development (two \$15,000 grants, for 2012-13 and for 2013-14), the Desert Healthcare District (portion of a \$5 million grant over five years), and the California Wellness Foundation (\$50,000 for one year). In addition to pursuing additional extramural funding to support student pipeline programs, the medical school will continue to devote core personnel resources to coordinate these programs. The current programs are organized into seven major initiatives (each described below) beginning with middle school outreach and continuing through postbaccalaureate premedical education.

- Medical Leaders of Tomorrow: This new program is a one-week residential activity for incoming tenth graders. The goal of the program is to stimulate interest in higher education and the healthcare field as a career goal. Students are educated on existing health issues and health disparities in the Inland Empire and use a team model to create a community health education project focusing on these issues. Students also receive presentations on preparing for college admission, careers in the healthcare field, and structured recreational activities. In addition, students take part in interactive activities such as a visit to a healthcare facility, medical simulations, and science experiments. The program seeks to increase student awareness and interest in careers in healthcare and expand student awareness and interest in higher education. A component for parents/guardians includes presentations on applying to college, financial aid, and parental involvement.
- Health Science Partnership: This program provides enrichment activities and presentations to high school students enrolled in health academies with an "at-risk" student population. Mentor teams comprised of UCR undergraduate health science students, postbaccalaureate students, and medical students visit these students in their classrooms presenting information on college life, health careers, medical school, and facilitating problem-based learning activities. The program aims to improve understanding of the college admission process, increase interest in pursuing a post-secondary education, and raise student awareness of careers in medicine/health.
- **Future Physician Leaders:** Students targeted for this program are high school, community college, and university students who are originally from Inland Southern California and aspire to be physician leaders in their community. The program has three components: Leadership Lecture Series, Summer Physician Shadowing Rotations, and Community Service/Community Health Projects. In 2012, the medical school established

a second "branch" of the program in the Riverside/San Bernardino area to augment the well-established Coachella Valley branch. Last summer, a total of 149 students participated in the Future Physician Leaders program (80 at the Riverside/San Bernardino site; 69 from the Coachella Valley site). Program participants were high school students (31), college students (111), and college graduates (7). The majority of the students were Latino (67%) and female (60%). All students were originally from the Inland Empire. A total of 18 student teams held 29 health project events in the Inland Empire. Through the health education projects, 1,043 residents of the Inland Empire benefited. A total of 36 community partners participated in the projects.

- **Community College Outreach Program:** To date, efforts to expand outreach to community colleges has taken several approaches recruitment efforts to matriculate community college students to UCR through various Transfer Day workshops at UCR; targeted presentations to pre-health students at local community colleges, including College of the Desert and Mt. San Antonio College; and mailings to community colleges about participation in the aforementioned Future Physician Leaders program. A new collaboration between the UCR School of Medicine and Riverside City College (RCC) has the explicit goal of fostering enhanced transfers from RCC to UCR, with an emphasis on community college transfers with aspirations for health profession careers. These RCC transfers would be recruited into the Medical Scholars Program (described below).
- **FastStart:** The FastStart program, established in 1999, is an intensive, five-week summer residential program designed for incoming UCR freshmen who aspire to medical and other science-based careers. Preference is given to students identified as coming from a disadvantaged background. Participants live on campus in residence halls, and attend three gateway classes each day (chemistry, biology, and mathematics) where they are introduced to and prepared for the rigors of a college science curriculum. The program also has a number of social and team-building activities, a visit to local hospitals, workshops on study skills, and professional development opportunities. Historically, FastStart students have entered UCR with lower high school GPAs and SAT scores than other UCR science students on average, yet have higher pass rates than the general UCR student population in the science and mathematics "gateway" courses for the upper division science curricula. Even more importantly, FastStart students are almost twice as likely to graduate from UCR with a science degree as non-FastStart students.
- Medical Scholars Program (MSP): This program is a learning community designed to provide academic, personal and professional development support for disadvantaged students in the sciences with the goal of increasing their graduation rates and promoting their entrance into medical school or other health profession postgraduate programs. The faculty and staff provide holistic mentoring and advising approaches to develop personalized academic plans based on each student's academic preparation, outside responsibilities (work, family, commuting, etc.), and career plans. Also important is providing key resources (e.g., study groups and academic coaches for gateway science courses, peer mentorship, and positive encouragement by staff and faculty) at critical transition points in the student's academic career (entering UCR as a freshman or transfer student, preparing to apply to graduate or professional schools, etc.). MSP sponsors

research internships, both for summer and academic year terms, which matches undergraduate students with faculty mentors. Finally, the program promotes professional and career development to inspire leadership and a sense of community service, both within the MSP community and to underserved communities.

• **Premedical Postbaccalaureate Program:** In 2013-14, this program expanded from six to 10 students and for the first time, accepted non-UCR alumni in addition to alumni. The program is designed to assist educationally and/or socio-economically disadvantaged applicants in gaining acceptance to medical school. The program begins with the following courses and activities: Kaplan MCAT preparation course; Kaplan Critical Thinking Course; Boosting Problem Solving Skills Workshop; field trip to Health Fair at David Geffen School of Medicine (speakers, medical school admissions, recruitment fair, etc.); and a financial aid and budget workshop. Starting in fall 2013, the postbac students enrolled full-time in the UCR College of Natural & Agricultural Sciences took two upper division science courses (approved by the postbac program director) and one humanities/social science course. The students complete a quarterly learning agreement and work closely with the program director to achieve a GPA of at least 3.5. Students also participate in clinical volunteer activities and attend seminars related to health care topics, including health care disparity issues.

Finally, the School of Medicine operates the campus' Health Professions Advising Center, which serves all UCR undergraduate students and alumni interested in careers in the health professions, including medicine. Professional staff and peer mentors are available to guide students 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.

V. OPERATING AND CAPITAL BUDGETS

A. Operating Budget

The state funding provided to the University of California for the UCR School of Medicine in the Budget Act of 2013-14 is crucial. This support was needed to open the new medical school, and is essential to expanding the educational infrastructure to continue building the second-, third-, and fourth-year curriculum. These components are necessary for a new LCME-accredited medical school to ultimately achieve full accreditation. The program has been challenged by an attrition of senior faculty due to retirements; therefore, significant start-up funding has been committed to not just replace, but grow, the basic science foundation with new faculty and laboratories to train an expanding enrollment; build an adequate clinical training platform sufficient to deliver the curriculum; and continue to build the infrastructure and systems critical to a four-year medical school.

Toward the mission of training the physician workforce for the Inland Southern California region, developing and expanding the strategies and program opportunities for new pipeline programs has been a priority. Extramural support has been secured from various agencies to build and grow new programs and strengthen the pool of qualified applicants in the region.

Recognizing the importance of expanding and linking transition of medical school training to graduate medical education (GME) (or residency training), the UCR medical school has been working diligently with its strategic hospital partners to expand the pipeline of graduate medical training options, with the goal of having more first-year residency slots than there are graduating medical school trainees. The planned expansion is detailed in Section VI below. As numerous workforce studies have validated, there is a high correlation of physicians living and practicing in the communities in which they completed their residency training. For this reason, a key strategy for the UCR School of Medicine will be to continue to develop new graduate medical education training slots available in its region.

State funding has been critical for the school to continue building the infrastructure necessary to transition from a two-year program in partnership with UCLA to the four-year UCR School of Medicine. Information systems, including application portals to the national application system for medical schools (AMCAS) and new linkages to central campus systems such as the registrar, student systems, curriculum management systems and others were needed. While systems development was sufficient and adequately developed to successfully enroll the first class of students, systems development is not completed and work continues.

In addition, important for developing the basic science foundation to deliver the curriculum is the establishment of academic expertise and infrastructure of a population-based health outcomes research and outreach center (described in Section VII), which has been identified as a priority. Toward this end, the School has been successful in recruiting an internationally recognized senior health services researcher, who will be starting at the UCR campus in April 2014.

School of Medicine Operating Budget FY 13/14					
(\$ in 000's)					
Revenue by Fund Source					
State					
State Start Up	\$15,000				
FTE related State General Funds	\$3,300				
Student Tuition (net of financial aid)	\$1,041				
Clinical					
Clinical Affiliations	\$1,527				
Professional Fees	\$1,350				
Desert Regional Medical Center Clinical Start Up	\$900				
Riverside Comm. Health Foundation	\$225				
Other	\$93				
Research					
Sponsored Research (direct costs)	\$2,800				
Sponsored Research (indirect cost recovery)	\$289				
Foundation Gifts	\$50				
Strategic Support					
UC system	\$2,000				

First 5 Contract	\$1,065	
Riverside County	\$1,500	
Kaiser Grant (net of scholarships)	\$1,165	
GME Affiliations	\$688	
Desert Regional Medical Center (Tenet)/Parkview	\$667	
Gifts	\$250	
OSHPD (psych residency) grant	\$100	
Desert Health Care District Pipeline Programs	\$100	
Pipeline Programs/Foundation Gifts	\$50	
Total Revenue	\$34,160	
Expense by Mission		
Clinical		
Payroll (Salary & Benefits)	\$9,165	
Non-payroll	\$560	
Graduate Medical Education		
Payroll (Salary & Benefits)	\$1,349	
Non-payroll	\$24	
Research		
Payroll (Salary & Benefits)	\$3,962	
Non-payroll	\$1,084	
Initial Comp. Expenditures	\$629	
Student Affairs/Education		
Payroll (Salary & Benefits)	\$5,20	
Non-payroll	\$369	
SOM Administration & Startup		
Payroll (Salary & Benefits)	\$3,348	
Non-payroll	\$390	
Total Expense	\$26,085	

The School of Medicine is retaining an encumbered balance held in reserve to fund initial complements for recently recruited faculty that will span and be expended over several fiscal years. The initial complement commitments will be expended for laboratory set-up, lab personnel, and support for research programs of the new faculty.

B. Capital Budget

The UCR campus has made a significant investment in the two facilities needed to open the medical school – the new School of Medicine Research Building and a major renovation to create the School of Medicine Education Building. The budget for these two buildings totaled approximately \$59 million, with funding comprised of campus equity funds (\$24 million from campus discretionary funds and indirect cost recovery), external financing of \$30 million (with debt service being provided by the campus), and state general obligation bond funds (\$5 million). The School of Medicine Research Building is a three-floor, 58,000-square-foot building, of

which two floors were entirely constructed; one floor was constructed as "shell" space, to be completed as the research faculty ranks grow and when financial resources are identified for this capital improvement. It serves 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. The School of Medicine Education Building provides educational and administrative space, including a remodeled anatomy lab, a new medical simulation laboratory, and expanded space for small-group problem-based learning sessions and Objective Structured Clinical Examinations (OSCEs). Financial resources to build out the simulation and learning center with state-of-the-art curricula and content capture were enabled through UCR's portion of State-funded Telemedicine and PRIME Facilities. Additional space for the medical school's student pipeline programs is provided in two triple-wide modular units and the Health Professions Advising Center occupies space in Pierce Hall.

VI. RESIDENCY TRAINING AND MEETING HEALTH CARE DELIVERY NEEDS

In addition to expanding its student pipeline programs, another key strategy of the UCR School of Medicine is creating a broad range of residency training programs. This capitalizes on the strong propensity for physicians to practice in the geographic location where they finished residency training. Nationally, approximately 40% of physicians practice near where they completed residency training. Retention is even greater, particularly in California, when a physician attends medical school and completes his or her residency in the state.

The UCR medical school is concentrating initially on developing Graduate Medical Education (GME) in the primary care and short-supply specialties of internal medicine, family medicine, primary care pediatrics, psychiatry, general surgery and OB/GYN. The UCR School of Medicine currently has 12 enrolled first-year residents in a new internal medicine program at Riverside County Regional Medical Center (at full maturity the program will have 36 residents). Effective July 1, 2014, the medical school will also assume sponsorship of the general surgery program (currently 18 residents; 30 at full maturity) and family medicine program (36 residents) at the Riverside County Regional Medical Center (RCRMC).

During the current academic year, the School of Medicine received accreditation from the Accreditation Council for Graduate Medical Education (ACGME) for two additional residency training programs – a primary care pediatrics "track" and a family medicine program in the Coachella Valley. The pediatrics track, in partnership with Loma Linda University and RCRMC, will train four residents each year beginning July 2014. The three-year program, supported in part by a grant from First 5 Riverside, will have a total of 12 residents at maturity in July 2016 and going forward. A family medicine program in partnership with Desert Regional Medical Center will begin in July 2015 with eight residents. At full maturity in July 2017 and going forward, this program, supported in part by the Desert Healthcare District, will enroll a total of 24 residents. The medical school has applied to ACGME for accreditation of a new psychiatry residency program, with financial support from the Office of Statewide Health Planning and Development.

Because the medical school is in its first year and residency training programs are being developed, the UCR School of Medicine does not yet have medical school graduates and clinical placements to track. This data will be described in subsequent reports.

VII. FACULTY RESEARCH ACTIVITIES

The UCR School of Medicine is building on the current research strengths at UCR and on its own faculty through recruitment and retention of clinical and basic science faculty and an enhanced infrastructure to support the research enterprise. 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. With research expertise spanning the range from neuroscience to endocrinology to inflammation, medical school faculty are making progress on autism spectrum disorders, traumatic brain injury, Alzheimer's disease, obesity, fertility, inflammatory bowel disease and parasitic infections, as well as safe and effective vaccines. Consequently, faculty have been successful competing for funding from diverse sources including the National Institutes of Health, the Department of Defense, private foundations and pharmaceutical companies.

The school also supports a Ph.D. graduate program in Biomedical Sciences with a mission to bridge the gap between basic research and new clinical innovations. To this end, Ph.D. students are embedded in the first-year medical curriculum so that they can learn the same human pathophysiology required to do medically translational research. However, they are also preparing to be the liaisons between practicing clinicians, experimental clinical trials, patient advocates and basic researchers. The program currently enrolls 16 students (seven male, nine female with 25% from underrepresented minorities).

The region's medical needs will drive the growth and expansion of important biomedical research to improve human health. Expanded basic science research will be enhanced by establishing a clinical and health services research program that emphasizes population health, preventive medicine, health outcomes, health care disparities, and development of scientific knowledge to spur innovations in health care delivery. Consistent with UCR's longstanding land grant mission of addressing regional needs, the medical school will also focus on diseases and health issues specific to the region and the ethnic and cultural groups residing in Inland Southern California – a focus consistent with the medical school's mission. This is responsive to the relatively poor health outcomes in the region, (e.g., deaths due to coronary heart disease and diabetes).

The framework for addressing this aspect of the mission will be developing faculty expertise in population-based health outcomes and health services research and creating a center for the promotion of healthy communities. Through innovative, research-based approaches involving community partnerships, prevention, and proactive health screening/monitoring, and the design and implementation of novel healthcare delivery models, this center will bring the current and future information established from studies of public health and populations to the practice of medicine. Thus far, two faculty have been appointed in the area of population-based health outcomes. The first, a full professor of clinical sciences and internationally known researcher in

community-partnered participatory research, is arriving April 2014. She is charged with organizing the school's center for the promotion of healthy communities. The center will integrate UCR faculty and researchers from the entire campus, including the School of Public Policy and Graduate School of Education, as well as simultaneously engaging the Inland Empire community. The second faculty member is an assistant professor of pediatrics whose research program explores the origins of health disparities in the social environments of early childhood.

The following principles will define research operations and drive on-going decisions:

- The school will focus on research initiatives consistent with the overall mission.
- In keeping with UCR's land grant heritage, the medical school will serve regional needs.
- Research will endeavor to improve human health through discovery, translation, commercialization, and application.
- Research priorities will be attentive to the NIH roadmap for medical research.
- The research enterprise will balance tactical (recruiting) vs. strategic (investment) growth opportunities.
- Partnerships with external sponsors (e.g., industry, pharmaceuticals) will be sought to build entrepreneurial opportunities and enhance regional economic growth.

VIII. Conclusion

With \$15 million in new state funding for the UCR School of Medicine in the 2013-14 State of California budget, UC Riverside has successfully established the state's first public medical school in more than four decades and laid the foundation for future growth. It has, in fact, done more than open a medical school; it has established the footing for a comprehensive medical education pipeline that will ultimately extend from the K-12 schools in Inland Southern California through residency training in the region. The UCR medical school has undertaken this expanded portfolio because it is critical for meeting its mission to retain as many of the physicians it trains as possible in a region of California with a severe physician shortage. The student pipeline programs before medical school and the graduate medical education after medical school are designed to capitalize on the strong propensity of physicians to practice in the geographic locations where they grow up or finish residency training. The UCR School of Medicine is also well-positioned to move to the second of three accreditation steps for all new medical schools. In 2014-15, when it has a total of 100 medical students enrolled in the first and second years, it will seek "provisional" accreditation from the Liaison Committee on Medical Education.

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