

Office of the President

**TO MEMBERS OF THE COMMITTEE ON EDUCATIONAL POLICY AND THE
COMMITTEE ON HEALTH SERVICES:**

ACTION ITEM

For Meeting of May 14, 2008 **POWERPOINT PRESENTATIONS: ONE TWO**

**APPROVAL TO PROCEED WITH THE NEXT PHASE OF PLANNING FOR A
PROPOSED SCHOOL OF MEDICINE, MERCED CAMPUS**

EXECUTIVE SUMMARY

The Merced campus has submitted a preliminary proposal to the President for a proposed new School of Medicine to meet critical statewide and regional physician workforce needs through expanded professional training in medical education and research. The proposal will build upon the current and planned research strengths of the UC Merced (UCM) campus and is consistent with the academic planning currently underway, as well as the recent faculty expressions of support for planning for a future School of Medicine. Planning for the proposed School of Medicine is an essential step in the development of the campus, just as it was for the development of the UC Irvine campus when it opened over 40 years ago.

In response to recent national and statewide studies forecasting future shortages of physicians, a January 2006 report of the Association of American Medical Colleges (AAMC) recommended a 30 percent expansion of student enrollment in all U.S. allopathic (MD granting) medical schools by 2015. The AAMC recommended that this occur through both expansion of enrollments in existing medical schools and development of new schools.

Provost Rory Hume and Associate Vice President Cathryn Nation will provide introductory remarks and an overview of California's projected physician workforce needs. As part of this introduction, the system-wide enrollment recommendations issued by the Advisory Council on Future Growth in the Health Professions (chaired by Regent Lansing and Provost Hume) will be reviewed. Chancellor Kang will discuss the next major phases of planning for the proposed new medical school and the projected timeline.

Chancellor Kang also will provide a brief overview of the collaborative planning efforts that have thus far occurred with colleagues from the UC Davis and UC San Francisco Schools of Medicine (including the UCSF-UC Berkeley Joint Medical Program and UCSF Fresno Program), which have been informed by experienced advisors and professional organizations, including the AAMC. The model under development for the proposed UCM School of Medicine anticipates providing medical education programs on the UC Merced campus and through

clinical educational programs to be developed in qualified and accredited existing healthcare facilities in the San Joaquin Valley. The first clinical site would be the UCSF facility in Fresno where the infrastructure is already available for clinical education. The model under discussion does not envision construction of a hospital or major clinical facilities.

The Regents will be requested to endorse continuing planning efforts leading to the development of a proposed future medical school. Upon completion of these and other activities, a formal proposal would be submitted to The President. That proposal would be subject to all customary review and approval requirements of the University and State, including final approval by The Regents. It is understood that significant capital and operational resources would be required and that the timeline for opening the proposed new school would be influenced by these considerations.

RECOMMENDATION

The President recommends that the Committee on Educational Policy and the Committee on Health Services recommend that The Regents endorse continuing planning efforts leading to the development of a proposed new School of Medicine at the UC Merced campus. It is further recommended that The Regents give approval to proceed with planning in support of this goal, including the creation of a planning office; development of the curriculum, business plan, and full proposal; planning for the initial infrastructure; and seeking review and approval of the curriculum and the new school by the Merced Division of the Academic Senate as well as the Academic Council.

Upon completion of these and other activities, the formal proposal to establish a new medical school would be submitted to the President. The proposal would then be subject to all customary review and approval requirements of the University and State, including final approval by The Regents. The support and approval of The Regents for the steps outlined above would enable the campus to continue this important planning effort and would facilitate fundraising efforts and discussions with regional and community partners.

BACKGROUND

The Merced campus proposes to establish a new four-year School of Medicine that would be among the first new allopathic medical schools to open in California in more than 40 years. The mission of the UCM School of Medicine would be to improve the health of the people of California and to serve the regional health care needs of the vast San Joaquin Valley of California by training a diverse physician workforce and developing innovative research and health care delivery programs to both improve the health of the residents of this medically underserved region and serve as models for improving health care access in California and nationally. In addition, the new medical school would be expected to generate tremendous positive economic gain in the Valley, given that more than \$845 million is spent annually by Valley residents on health care services delivered outside of the San Joaquin Valley. Major elements of the proposed UC Merced School of Medicine would include:

- An innovative and distinguished research program, building on areas of research in which the campus has existing strength. UC Merced would leverage its inter-disciplinary environment to create a unique signature research program in population health that is centered on diseases and health issues relevant to the San Joaquin Valley and its residents. Global health, health disparities, preventive medicine and the development of new health care delivery models are expected to be important areas of focus. UCM will continue to develop strong programs in basic and applied sciences, with attention to stem cell biology, infectious diseases, cognitive sciences, and health informatics. A focus on chronic diseases important to the region, such as asthma and diabetes will be developed and expanded over time. Other areas are likely to include genomics and nanotechnology.
- Educational programs which are interdisciplinary, problem and case-based with longitudinal clinical experiences in a human disease-based, integrative curriculum. Students would have the opportunity to focus on improving health outcomes in both primary care and specialty areas. These programs would help contribute to the development of a diverse workforce of physicians reflective of the face of 21st century California. The interdisciplinary environment that exists at UC Merced among faculty in science, engineering and social sciences, policy, and economics is ideally suited for population-based health research. More specifically, the interdisciplinary programs would bring together faculty from cognitive sciences, anthropology, social sciences, psychology, health policy and economics, informatics and computer science, environmental sciences, bioengineering, physical sciences, bioscience, and other fields to address complex health-related challenges.
- A distributed medical education model that is consistent with the mission of serving the medically underserved throughout the San Joaquin Valley and offer new approaches in support of the redesign of health care delivery systems. While the ethnic, cultural, and socioeconomic diversity of the San Joaquin Valley poses particular challenges for public and community health, the Valley also serves as a natural laboratory to define and understand the relationship between health conditions, environmental health, risk, and the cultural, community, and social environments in which an individual lives.
- Partnerships with regional hospitals and clinics that offer students a broad range of experiences and leverage existing health care resources in lieu of financing and constructing a new hospital. In addition to collaborations with UCD and UCSF, more than 20 of the largest community hospitals and community health centers, along with the leading HMO in the San Joaquin Valley have offered to collaborate with the proposed new UCM School of Medicine.

Physician Workforce Needs

A January 2006 report of the AAMC calls for a 30 percent expansion of enrollment in all U.S. allopathic medical schools by 2015. The AAMC recommends that this occur through both expansion of enrollments in existing medical schools and development of new ones. By virtually all measures, California lags well behind national averages with respect to medical education and

training opportunities. For example, California ranks 39th in the nation for the number of medical students enrolled in “in-state” schools (per 100,000 population). The state also ranks in the bottom half nationwide for physicians training in residencies and fellowships and the proportion of active physicians who attended medical schools in-state.

By 2015, the statewide supply of physicians is projected to be approximately 17,500 physicians (16 percent) less than projected demand. In the San Joaquin Valley, the shortfall is expected to be much greater. This area has the lowest number of active patient care physicians and primary care physicians per capita in the state. Indeed, the residents of the eight counties that comprise the San Joaquin Valley have less than half the state average rate for local access to physicians. Many Valley communities have been designated as Health Professional Shortage Areas (HPSA) by the federal government. Between 2000 and 2015, Merced and the other counties of the San Joaquin Valley are expected to experience an estimated 43% increase in population, compared to a projected statewide growth rate of about 22%. For the period of 2000-2050, the San Joaquin Valley is forecast to record a growth rate of 184%, compared to statewide growth of about 74%. These and other demographic changes will pose distinct challenges for meeting future health needs in this seriously underserved region. The ethnically diverse San Joaquin Valley also is characterized by a disproportionately young population, with high poverty rates and comparatively low educational attainment.

Medical Education Activities

Within the context of the campus and mission of the proposed new medical school, it is important to note that the UC Merced undergraduate population is the most ethnically diverse of all UC campuses. The UCM undergraduate population also has the highest percentage of first generation and low income students among the UC campuses. The diversity of the UCM student body will provide a valuable pipeline for achieving much-needed diversity in the physician workforce. Students from diverse backgrounds throughout the state are likely to be attracted by the mission of service to the medically underserved. It should also be noted that undergraduate biology majors comprise more than 35% of undergraduate students, many of whom have expressed interest in future health careers. Science and engineering majors comprise more than 50% of undergraduate student enrollments. This undergraduate population provides an excellent pipeline of students to pursue medical careers.

Research Activities

The proposed UCM School of Medicine would develop and support research activities that are essential to provide high quality educational experiences for students, improve health care delivery, and distinguish the School’s research and clinical programs. From the outset, UCM intends to become a leader in biomedical sciences and health sciences research. The existing core of approximately 25 UC Merced faculty broadly conducting health sciences related research will be expanded by new faculty positions that come with increasing student enrollments to the campus. UCM is in a unique position to integrate health science faculty across multiple disciplines to create a rich and diverse research portfolio for population health and basic and applied biomedical sciences.

In 2006, UC Merced established its Biomedical Sciences Research Institute aimed at strengthening research and graduate education in the biomedical and related health sciences at UCM and fostering interdisciplinary collaboration with the private sector. The campus has organized its research focus around the spectrum of issues associated with human health and health of the environment. An investment of new faculty positions will enable the campus to build upon its current strengths and continue to foster the interdisciplinary research environment necessary to address complex health-related challenges in the region. Research programs will leverage expertise across multiple schools on the campus, including areas such as stem cell biology, infectious disease, prevention, medical anthropology, chronic disease, cognitive sciences, psychology, informatics, bioengineering, multicultural health, and health disparities.

Distributed Clinical System

The new UCM School of Medicine plans to develop and use a distributed medical education training system. This model is consistent with School's proposed mission and would be socially and economically advantageous. Rather than constructing its own teaching hospital, UC Merced would partner with area hospitals and clinics in the San Joaquin Valley, thereby leveraging existing health care resources and allowing UCM medical students and residents to train throughout the eight county region. Because national and statewide data show that physicians tend to practice in locations where they complete their residency training, this approach would be expected to steadily improve access to health services.

As a parallel and intermediary step, UCM would plan to develop a Clinical Medical Education Program (CMEP), to serve as a locus for organizing the clerkship sites and training opportunities upon which to build a medical school. The CMEP would identify and coordinate, in collaboration with regional healthcare partners, clerkship rotations for medical students. Initially, this program would be offered through the UCSF Fresno program affiliates. The CMEP would provide an organizational structure for monitoring, evaluating, and tracking student progress throughout the distributed system. As part of these activities, the CMEP also would offer an evaluation-based approach to continuing medical education. The campus also would facilitate development of proposed new graduate medical education residency training opportunities with local hospitals and clinics.

Enrollment

At maturity, the proposed UCM School of Medicine is envisioned to have a total enrollment of 384 medical (MD) students and about 70 graduate (PhD) students. Although determinations regarding timelines would continue to evolve, current plans call for enrollment of the first class of 32 students in 2013. Initially these programs would be conducted at the UCM campus and at UCSF Fresno clinical sites.

In the future, clinical programs also would be offered through strategic partnerships involving hospitals and clinics in other areas of the San Joaquin Valley, including those in rural communities. Curriculum for these programs would be developed in partnership with affiliated

hospitals and include content addressing the specific populations of the region, including African Americans, Asian Americans, Caucasians, Hispanics, and Native Americans. Areas of focus would include cultural competency; chronic disease management; health information technology, including telemedicine applications, and translational research.

In order to recruit and retain physicians likely to practice in the region, the proposed UCM School of Medicine intends to develop and offer comprehensive graduate medical education (GME) and continuing medical education (CME) programs. Graduate medical education includes residency and fellowship training. Providing GME opportunities in the San Joaquin Valley for UCM School of Medicine students would be a vital part of increasing the number of physicians who remain in the Valley. The San Joaquin Valley currently has about 420 residency positions including programs in primary care, as well as a number of medical and surgical specialties. UCM would work with regional hospitals, clinics, and medical groups to plan for increased GME training in all specialties. In addition, the UC Merced School of Medicine would use its medical education network to create CME programs which would permit physicians to access the latest in medical information without leaving their communities.

UC Partnerships

The UC Merced campus is very fortunate to have effective collaborative partners from the UCD and the UCSF Schools of Medicine. UCSF Fresno would provide the initial clinical infrastructure for the proposed new UCM School of Medicine, as well as the initial faculty practice plan. Assistance with curriculum development would be provided by the UCD and UCSF Schools of Medicine, along with the UCSF-UC Berkeley Joint Medical Program. Leaders from the UCD and UCSF programs are active participants on the planning team for the proposed UCM School of Medicine and their generous contributions of knowledge and expertise would enable the UC Merced program to rapidly develop UC-quality curricular offerings. In addition to curriculum development, continued collaboration is envisioned in areas that include faculty recruitment, clinical instruction, research, graduate medical education, and various program and administrative support services. Such cooperative efforts would contribute significantly to economic efficiencies in the planning of the proposed new medical school.

Timeline

UC Merced is in the planning phase for development of an independently accredited four-year School of Medicine. The campus anticipates submission of a formal proposal for a School of Medicine to the President of the University in approximately 12 to 18 months. The proposal would then go forward for review by the Academic Senate, review and concurrence by the California Post-Secondary Education Commission (CPEC), and ultimately to the President for transmittal and a recommendation for approval to the Board of Regents (which must give final approval). Thereafter, commitments regarding new resources for capital and operational needs must also be approved and secured prior to the enrollment of students. As planning continues, the campus also would develop the curriculum, refine its business plan and full proposal, develop the CEMP and the GME program and plan for facilities needs and long term construction of necessary infrastructure. Steps also would be undertaken to seek accreditation from the Liaison

Committee on Medical Education. Pending these approvals and the commitment of new resources, the School of Medicine is proposed to open in 2013. It would reach maturity with an enrollment of 384 students in 2020, a size comparable to existing UC medical schools at Davis, Irvine, and San Diego. (UCLA and UCSF are considerably larger, with 150-160 students per class enrolled.)

Operating Costs

Based upon the preliminary proposal, the projected costs associated with the medical school planning are summarized below.

In 2008-2009, projected costs would be approximately \$2.0 million and would be funded by a gift already received by the campus. Pending approval for the period 2009-2010 to 2010-2011, the campus estimates that costs would be approximately \$7.0 million, of which \$2.0 million would be supported by gift funds that already have been secured. During this period, a Dean would be hired and initial faculty recruitment efforts would be undertaken. It is recognized that, over time, substantial additional funding would be required through state funds, gifts, grants, and other non-State sources of revenue.

Operating costs during 2011-2012 are estimated to be approximately \$10 to \$15 million. These budget projections and resource requirements would be carefully analyzed and refined during the coming year. From 2012-2013, projected costs are anticipated to be approximately \$13 to \$15 million. The new School of Medicine is planned to open in 2013-2014 with a class of 32 students and an annual operating budget of \$11 to \$16 million.

At full enrollment and build-out, annual operating costs are estimated to be approximately \$81 to \$86 million [in 2007-08 dollars and excluding graduate medical (resident) positions]. This funding would be provided from a combination of state funds and educational fees, professional school (medical student) fees, clinical revenue, contracts and grants, and gifts and endowments.

A full business plan would be developed during the next year. The cost and resource requirements of new graduate medical education programs have not yet been determined because UC Merced is still in the initial stages of discussion with the regional partner hospitals and clinics. New residency training positions likely would be supported and funded through a combination of federal graduate medical education funds, participating hospitals, patient care revenue, grants, fundraising, and state support. Resource requirements and budget projections would be defined in the business plan.

Capital Costs

Capital projects and expenses for a School of Medicine include enhancement of existing facilities, leasing other initial space, and the eventual construction of additional facilities for medical education and research. Additional off-campus space would be leased for clinical purposes. Growth of the school would require expanded education and research space, as well as support for community based clinical facilities in the region. Funding for capital projects is

expected to come from a combination of enhanced fundraising efforts, expanded contract and grant activity, new sources of clinical revenue, strategic industry partnerships, and new investments by the State.

Fundraising Efforts

UC Merced has already received new funds totaling more than \$10 million to support several aspects of medical school planning and related biomedical research activities. UCM continues to be successful in raising funds from private sources recording more than \$72 million since the inception of the campus. Authorization by The Regents for continued planning for the proposed School of Medicine would be instrumental in enabling the campus to expand strategic fundraising efforts to support development of the medical school.

Next Steps

As the campus moves forward, a variety of efforts would be undertaken in support of developing a new medical school at UC Merced. A distinguished External Advisory Board, including deans and other experts would be appointed to aid in the crafting of a distinctive academic vision for the medical school and a business plan to ensure the success of the school. UCM also continues to benefit from widespread support from the community, including business leaders, hospital and other health care executives, and elected officials. This support, together with that of The Regents, provides a strong foundation as the campus works to establish a much needed allopathic medical school in the San Joaquin Valley of California.