April 3, 2008

TO: THOMAS COGSWELL, CHAIR
RIVERSIDE DIVISION

FR: PIERRE KELLER, CHAIR
COMMITTEE ON EDUCATIONAL POLICY

RE: POST BACCALAUREATE PROGRAM IN BIOMEDICAL SCIENCES

The CEP met on April 2 and discussed the proposal for the Post Baccalaureate Program in Biomedical Sciences. The conception for this proposal was first brought to us via the Business Plan for the School of Medicine. The CEP finds the goals of the program both valuable and laudable considering both the number of disadvantaged students we have at Riverside and the medical needs of the Inland Empire. We have no reservations about the mission of the Post Baccalaureate Program. However, we do have some questions about the timing of the intervention proposed in the program. Prima facie, an intervention to aid disadvantaged students in their preparation for medical school would seem more likely to meet with success if it were begun at an earlier stage in a student’s career. We noted however that programs such as this are already in place and apparently successful on other UC campuses. This went a long way to mitigating our concern about potential effectiveness at such a late stage.

We think that it would be sensible to initiate a similar program at the undergraduate level, if the resources for such a program can be secured. We recommend that resources for such a program be identified if possible and that such a program be mounted.

We voted unanimously in favor of the proposal (6 Yes votes, 0 No votes, 0 Abstentions) adding a stipulation similar to that of the CNAS Executive Committee: that the effectiveness of the program be thoroughly evaluated after a two year period.
TO: Gary Scott, Ph.D.
Associate Dean, CNAS

FR: Neal Schiller, Ph.D.
Associate Dean
Division of Biomedical Sciences

RE: Postbaccalaureate Program

As we discussed recently, I am writing you to request your assistance in developing a postbaccalaureate (postbac) program at UC Riverside. In order for this program to be successful, we will need the cooperation and collaboration of several important groups on campus, including the Executive Committee of the College of Natural and Agricultural Sciences, the registrar’s office, financial aid office, and others. Before describing the program, some important background is needed.

**Background:**

It has been extensively discussed within the State of California (as well as on campus during the preparation of a proposal for a UC Riverside School of Medicine) that there is both a critical need to increase the number of physicians in California who practice in underserved communities, and a compelling need to diversify the healthcare workforce. One way to accomplish both of these goals is to increase the number of medical school matriculants who come from underserved and underrepresented communities. The Division of Biomedical Sciences has been involved in several major “pipeline” initiatives over the past 8 years to address this matter, including the Health Sciences Partnership Program (our outreach program to seven Health Academy programs in local area high schools), our 5-week residential summer bridge program called *FastStart*, and our Medical Scholars Program. Each of these programs has been funded either completely or mainly from external funding with additional support from the Division of Biomedical Sciences. Over the past 18 months, we have been involved in developing a postbaccalaureate consortium which has positioned us to now open a new postbac program at UC Riverside.

Each of the 5 UC Schools of Medicine has been training students in postbac programs for a number of years now with great success. The goal of these programs has been to recruit and train educationally and/or socio-economically disadvantaged applicants to increase their success in gaining acceptance to medical school. Ultimately, these programs hope to increase the number of physicians who practice in underserved areas. There is now good evidence that this first goal has been attained. As reported recently by Grumbach and Chen (JAMA 296:1079-1085, 2006), “postbaccalaureate premedical programs appear to be an effective intervention to increase the number of medical school matriculants from disadvantaged and underrepresented groups”. In regards to where these physicians will practice, a study is now underway to investigate that.

During the past 18 months, the 5 UC postbac programs have been meeting in preparation for a new grant proposal to The California Endowment which has previously funded many of
these programs. Seeking to increase the number of students who participate in these programs (each of which is small, typically 12-15 students), both UCLA/Drew and the UCR/UCLA Thomas Haider Program were invited to attend these meetings and develop their own programs. A postbaccalaureate consortium was developed between all the UC Schools of Medicine, including our program and UCLA/Drew and a common application was developed. This application allows students to apply to each program in the consortium in a single application and with no charge (see https://meded-postbac.uesd.edu/). Additionally, The California Endowment provided a 3-year grant to each of the consortium schools, including UC Riverside, in order to support the program. In order to qualify for this grant, the Division of Biomedical Sciences had to guarantee a level of support for this program which amounts to about half of the final cost of the program. The initiation of this new postbac program is consistent with the mission of the UCR/UCLA Thomas Haider Program as well as the mission of the proposed UC Riverside School of Medicine which is:

"The mission of the UCR School of Medicine is to improve the health of the people of California and, especially, to serve Inland Southern California by training a diverse workforce of physicians and by developing innovative research and health care delivery programs that will improve the health of the medically underserved in the region and become models to be emulated throughout the state and nation."

Because of this mission, the new postbac program at UC Riverside will be restricted to applicants who completed their undergraduate training at UC Riverside (this is unique within UC postbac programs). As a result this program, even considering the small size of the program, should be able to dramatically increase the number of underrepresented and disadvantaged UC Riverside undergraduates who matriculate into medical school, either into the UCR/UCLA Thomas Haider Program in Biomedical Sciences or into other medical schools in the state and the nation.

The Program:
Each of the UC postbac programs have similar elements – the year long program begins with an intensive 6-week summer study skills and MCAT preparation program, followed by three quarters of enrollment in upper division science courses at UC Riverside. Participation in this inaugural year is limited to eight (8) students (we intend to grow to 12-15 in subsequent years). Students accepted to our program will receive extensive instruction, personalized advising and counseling and support in:

- Developing effective studying and test-taking skills
- Preparing for the Medical Colleges Admissions Test (MCAT)
- Writing an effective personal statement
- Completing the American Medical Colleges Application Service
- Selecting medical schools
- Understanding the health system and health careers
- Preparing for interviews
- Establishing a competitive academic record
In response to the development of a postbaccalaureate consortium, the southern 5 UC postbac programs (UCSD, UCI, UCLA, UCLA/Drew, and UCR/UCLA) will collaborate by having a one-week joint program hosted by UCLA School of Medicine. This intense week of programming will set the tone for the rest of the year-long program with various student learning skills tests and evaluations, study skills strategies, confidence and team building exercises, etc. Hosted by Hy Doyle, Ph.D., a noted educational specialist, this program will not only be of most assistance to our staff as we will be the newest postbac program in the system.

After this initial week, the UC Riverside postbac students will be housed on campus and work as a cohort for 5-weeks in intensive MCAT preparation, development of comprehensive problem solving skills, improved reading and comprehension, test-taking strategies, time management, personal counseling, confidence building, and professional development workshops and seminars. After this summer program, the students will have a few weeks before their scheduled MCAT examination.

Prior to the start of the academic year, each student will receive an individualized academic plan tailored to their specific educational needs. It is generally accepted that the students who begin this program would benefit from additional upper division science coursework to increase their science gpa, which most medical schools closely examine in determining the student’s ability to successfully complete a medical school curriculum. These students would sign a “learning contract” which would set goals for the year, typically a 3.5 or better each academic quarter, while acknowledging that they must set aside volunteer or work commitments, utilize key campus educational resources (e.g., study groups, TA and office hours, supplemental instruction, etc.), and actively participate in designated weekly seminars on health care topics, ethics, biomedical research, etc.

Although this program is designed for one year, participants will be supported and advised after this period until they are successful at getting into medical school. This advisement includes a substantive and evaluative letter from the postbac Director for each postbac student which is known to carry a lot of weight in Medical School Admissions Committees.

**Issues:**

The establishment of a new postbac program at UC Riverside raises a number of issues which must be addressed. These include issues of admission and registration for students who have already received BS or BA degrees from UC Riverside, financial aid and health insurance, admission into upper division science classes which are often highly impacted, utilization of campus resources, etc. Our staff has scheduled meetings with a number of campus constituencies even before we have hired a Postbac Coordinator who will handle the day-to-day operations of the program. This coordinator will work closely with me (as Director) and Teresa Cofield, who serves as the Assistant Director of the Medical Scholars Program.

Having discussed some of the concerns with several other postbac Directors and Coordinators, it has been recommended that we try to register and admit these students into the College of Natural and Agricultural Sciences as “Limited Status” students. I understand that CNAS has specific policies regarding these students, one of which might be a concern for the new postbac students. Specifically, the policy states that students “should indicate a minimal overall grade point average of 3.30”. Most UC postbac programs admit students who have a minimum science gpa of ~2.75 and we have adopted this criteria for our own program. While we expect most students will have a somewhat higher science gpa (closer to 3.00), the goal of this program is to enhance the student’s science gpa. If their science gpa is already 3.30 or
above, these students would be advised to participate in other types of postgraduate training. So I am hoping that the Executive Committee would consider waiving this gpa requirement for our postbac students.

A second concern is enrolling these students into upper division science courses. Applicants who have already completed a lot of upper division science classes at UC Riverside would probably be better suited to pursue a graduate degree than a postbac. For those who we consider good candidates for the postbac, we would expect them to register for 12 units per academic quarter, with at least 2 upper division science classes each quarter. We would consider classes such as those listed below as good choices for these students:

Biochemistry classes:
BCH 100 Elementary Biochemistry (4)
BCH 110A, B and C General Biochemistry (4, 4, 4)

Biology classes: there are many here that would be appropriate, but a few specific examples are:
BIO 102 Introductory Genetics (4)
BIO 107A Molecular Biology (4)
BIO 107B Advanced Molecular Biology (3)
BIO 115 Human Genetics (3)
BIO 121 Introductory Microbiology (4)
BIO 128 Immunology (3)

While we consider the BIO 161A, 161B, 171, and 171L to be an excellent sequence of classes, we recognize that these classes are very impacted – however, we hope that some of our students might qualify for this sequence.

We would identify a set of classes which would be ideal for our postbac students during the summer period of evaluation. We recognize that this would mean that these students would be late registrants for these classes and hope to work with the Department Chairs and instructional faculty to determine if a few seats could be reserved for our students (note that we will have a maximum of 8 students in the program the first year). We do consider this to be a serious issue and alternative classes may be needed to satisfy this requirement. We hope that the fact that these students would be “super seniors” might be taken into consideration in allowing them to register late for some of the fall classes with the possibility of enrolling in these courses.

Request:
The purpose of this letter is to request the assistance of the CNAS Executive Committee and faculty in helping us establish this postbac program at UC Riverside. We hope that we can work with appropriate college representatives in addressing the issues listed above. We firmly believe that this postbac program can significantly improve the chances of some disadvantaged and underrepresented UC Riverside graduates to get into high quality medical schools in the UC system, including our own UCR/UCLA Thomas Haider Program in Biomedical Sciences. Thank you for your collaboration in this endeavor.
To: Pierre Keller, Chair, Committee on Educational Policy  
Fr: Len Nunney, Chair, CNAS Executive Committee  
Re: Postbaccalaureate Premedical Program  
Cc: Neal Schiller, Associate Dean, Division of Biomedical Sciences

13 Mar. 2008

At its meeting of 11 Mar. 2008, the CNAS Executive Committee considered a proposal from the Division of Biomedical Sciences for a Postbaccalaureate Premedical Program. The committee supported the program and granted a 2-year waiver to the program's students regarding the GPA minimum of 3.30 for limited status students.

Background: The program would involve a very limited number of UCR graduates deemed suitable for additional training to achieve their goal of entering medical school. A cornerstone of the proposal is that the students would take a series of upper-division science courses at UCR, enrolling as "limited status" students. College policy is that limited status students must have a GPA exceeding 3.30; however the students targeted for the Program would typically have a GPA of around 3.00 - hence the need for a waiver. The committee has initially granted this waiver for a 2-year period in order to get some feedback on the performance of the program once it has become established.
March 11th, 2008

The Biomedical Sciences Executive Committee supports the proposed Post baccalaureate Program as described by Associate Dean Schiller in the February 5th letter to Associate Dean for CNAS, Gary Scott.

Ameae M. Walker  
Chair, Executive Committee for Biomedical Sciences