The Challenges: how do we attract and retain more students, maintain quality programs, and respond to the changing needs in our student population? Asking more from the current faculty and programs is unlikely to succeed - minor adjustments to small projects will provide only incremental progress - we need to reinvent our programs and need immediate investment to do so. Currently our biomedical faculty are organized in departments or units that are named for their research focus (e.g. Cell Biology & Neuroscience, or Microbiology). This is confusing for the large number of parents and potential students that visit our campus looking for a pre-medical program. Finally, the HHMI and AMA have released a report on reinventing the premedicall curriculum, and this group will be changing the MCAT exam near future. To meet the challenges of achieving the key competencies described in the report, we need to develop new courses that integrate pre-health content with discipline specific skills.

The Solution: Students are increasingly motivated by long term career goals, and there is a consistent, large demand for pre-health courses and majors. In response, some universities have creatively responded by offering interdisciplinary pre-health programs. These have been remarkably successful in meeting the student’s needs and increasing enrollment. We propose to use targeted faculty buy outs, support for course development, program advertising, and master classes taught by visiting faculty to create an innovative pre-health curriculum that is pedagogically rigorous and market smart. This curriculum would be an integrated program that would span many different departments on campus, and it would create a branding that would be easily identified by potential students and their families. To meet the challenges of achieving the key competencies described in the HHMI report, we need to develop new courses that integrate pre-health content with discipline specific skills. We need to develop courses in chemistry, philosophy, English, and modern languages to produce a curriculum that speak to the chemistry of life and disease, the philosophy of medical ethics, the discourse of science and the textual analysis of current literature, the appreciation of, and ability to work within, a health care system that increasingly serves the Spanish speaking community.

Investment: $150,000 is requested. This would leverage the HHMI resources currently being used to revise the biology curriculum. The funds would be used for: 1) faculty buyouts, and summer salaries, for course development (12 at $7,500 each) in many different departments, 2) A full time administrator ($40,000 including benefits) for one year to organize the effort, develop the program branding, design the recruiting materials, create audiovisual recruiting materials (iTunes U, utube, Web-based content; $5,000). $15,000 would be used for designing and printing recruiting materials. Course development would begin Spring of 2010, pilot courses would be offered in Fall of 2010, program advertising would begin in 2011.

Return based on the growth of the cell biology & neuroscience major (which grew from 365 to 415 students just this year), and the documented success of pre-health programs elsewhere, our projection is that this new program will produce a growth of at least 100 students (~30% out of state) over the next three years.

1 Noted in the UPBAC Budget Reduction Management Plan, Nov. 2009
2 Scientific Foundations for Future Physicians, a report by the HHMI and AMA
3 A hot Trend on Campus: Majoring in Health Care; New York Times, Feb. 6, 2006
Interdisciplinary Pre-Health Program – Questions & Answers

How is this program sustained?
If a prospective student and their family come to campus, with an interest in a pre-med, pre-dent, or pre-PA career what do they see? Ecology, Cell Biology & Neuroscience, and Microbiology all offer options called biomed or something similar. What do they major in? Who do they ask advice from? Ask Rhonda Russell, this is a serious problem, and the numbers are growing. Cell Biology & Neuroscience has ended up the default advisor, and each spring, when we are supposed to contact prospective students we are given a list of ~300 students to contact. We only have 11 faculty! We are dropping the ball, we do not have the man power to contact prospective students, and when these students come to campus the message they get is confusing. If we can create a program, a single point of contact, a unified advising structure, we can address the needs of a large, and growing, group of students. In short, we are asking for one time funds to create a unified curriculum that will be the single entry point for students interested in pre-health professions.

It says the Administrator is one year but who does the work after that?
To develop the program, we need a coordinator to spearhead the development of the program. This should take a year, and when it is in place we won’t need maintenance. We should have generated the program recruiting materials for several years, so we should have a branded pre-health program that is advertised to all prospective students.

Are these new classes with new teachers and new costs or are these existing classes presented differently?
There are several ways of looking at this. First, simply coordinating the pre-health curriculum, and providing support for faculty to work together to develop a coherent program would be a big advance. This could involve ‘tuning” some of the courses, adjusting times they are offered, and bundling them as an identifiable program.

A different way of looking at this is that we are going to have to change our curriculum in the near future to respond to the new MCAT exam and competencies outlined in the attached HHMI report (Terry Leist has a copy of this 43 page report in his office, or it can be downloaded from the following website: [http://www.aamc.org/newsroom/pressrel/2009/090604.htm](http://www.aamc.org/newsroom/pressrel/2009/090604.htm)). We could have first-mover advantage if we adopt our curriculum now. This may involve some new courses, but if these courses generate new student enrollment, isn’t it worth the investment? If you look at the competencies described in the HHMI report, it is clear we are going to have to integrate courses across the college, including English, Philosophy, Chemistry, Anthropology and Modern languages. Funds for buy outs and course development are going to be crucial to get this done. We have HHMI support to revamp biology courses, but we need to create a whole new program that crosses many departmental boundaries to be successful.

Where does the estimate of 100 new students come from?
This is a guess based on several trends:

1) Our department has seen consistent enrollment growth over the short (8 year) life of the department. We now have 415 majors, which is more than chemistry, physics, and microbiology combined. Each time we stretch to meet the needs of our majors, offer courses like genes and cancer, we see rapid growth in our enrollment.

2) Last year Steve Eiger offered a first semester, freshman level human physiology course. He based this course on a physiology-first concept being used in other pre-health programs. Last year the enrollment was 100 students, this year it is 170 and this cohort of 170 students are now enrolling in Biology 213. When we offer the courses, they come.

3) Other universities - the University of Colorado for example - have branded pre-health programs and seen large growth (article located at: [http://www.cnhs.umb.edu/ehs/NYTimes.html](http://www.cnhs.umb.edu/ehs/NYTimes.html)).