Response to the Task Force Assessment of the Biomedical Engineering Graduate Program

The Department of Biomedical Engineering appreciates the effort that the Task Force has expended in reviewing University Graduate Programs, and we feel that this effort has already led us towards the identification of ways that we can improve our own program. Nevertheless, we would like to respond to some of the points made in the Task Force's review of the Biomedical Engineering Graduate Program.

The Task Force identified the BME mean TTD of 4.6 years as 'very good'; however, we believe that this statistic is exceptional when compared to other programs in the Graduate College (and across the nation).

The report states that 19% of the (PhD) students leave without a degree. As detailed in our Graduate Program Handbook, students are not considered PhD students until after the completion of the Qualifying Exam. Some students enter our graduate program, but leave for other professional schools (e.g. medical school). Doctoral students that do not pass the qualifying examination leave with a Masters degree, yet this outcome is not included in the assessment. In our experience, less than 5% of all graduate students leave without a degree. The Program faculty would welcome discussions as to how to best reflect these aspects of our program within the assessment framework provided by the Graduate College.

Although there is a real need for additional faculty in the BME program, citing a 5.4 student/faculty ratio as a concern may be misleading. Many of our graduate students are supported and mentored by secondary and adjunct faculty from departments located in the College of Medicine, and the computed ratio does not take the secondary faculty numbers into account. The Task Force's assertion that the BME Graduate Program has grown too fast is difficult to understand, as the Program has been in place for over 30 years.

As to the concern that there is insufficient support for students in our program, several points can be made. The BME Graduate Program receives about 150 applications per year. Many of these students are qualified for admission into the program; in fact, there are always more qualified applicants than there are open research assistantships at any given time. From this perspective, acceptance to our program is very selective. The demand for BME students in our collaborators' labs in the College of Medicine is strong, yet many of these investigators are hesitant to commit to 5 years of support for students that are largely unknown to them. We have tried to develop programs that allow for applicant visits to the University, yet there are insufficient funds for this purpose. Our solution has been to allow students to matriculate without a firm commitment of support (this fraction is what is referred to in the report). In actual fact, better than 95% of our students finish their degree program with support, usually commencing in year two. For example, in fall semester 2007, six new PhD students entered our program, five of whom had guaranteed support. The sixth student found a research mentor and an RA appointment by the start of spring semester 2008, and continues to be supported by the same mentor to this day. Although this approach might be somewhat different than that taken by other programs, our strategy works. Our students have indicated to us that this mechanism is preferable to not being accepted into the program, and we have adjusted our admission policies accordingly, but are still not satisfied with the situation. One of our Program's primary goals is to increase student stipend and tuition support.

The BME Faculty is also concerned that no mention was made of the faculty productivity in the Task Force report. We have worked hard to increase our research funding, presenting about $7.8 million in research expenditures during the 2007-2008 academic year. These numbers reflect the productivity of the primary BME faculty members, which should be an important point in the review of the Graduate Program.

The BME Graduate Program is interdisciplinary. As such, current assessment techniques (e.g., calculating student/faculty ratio based upon the number of primary faculty) do not give the full picture of our program. As the University of Iowa prides itself on the extent of its interdisciplinary research programs, new metrics should be developed that can appropriately reflect the productivity of such programs. We would like to engage in discussions with the Graduate College to explore alternative metrics for assessing programs like ours that have a diverse constituency.