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To: Lee L. Huntsman
Provost

December 19, 2001

From: Marsha L. Landolt
Dean and Vice Provost

Re: Department of Bioengineering 10-year review

Summary and recommendation. The Graduate School Council met with the internal members of the Department of Bioengineering review committee and with Departmental representatives at its meeting of May 31, 2001. The review team and the Graduate School Council were highly complimentary of this vigorous, productive and outstanding department. They enthusiastically recommended continuation of its BS, MS and PhD programs. I concur with the assessment and the recommendation.

The self-study, review committee report, and the Department's response to the report are attached.

Background. The Department of Bioengineering was formally established in the College of Engineering and the School of Medicine about 15 years ago, having grown from a research center. Equal numbers of faculty lines come from the two units. At roughly that time, the unit began to offer a BS program, which remained small (about 20 majors) until last year. It will grow to 140 majors by 2006 in steps that have already begun. The unit admitted its first PhD students at about the time it gained departmental status. Currently, the Department counts about 125 graduate students, 19 tenure track faculty, 11 research faculty, 58 staff and 20 postdoctoral fellows. Roughly half a dozen Master's and a dozen PhD degrees are awarded annually; the number of BS recipients falls within this range. The planned substantial growth in the undergraduate program in the first half of this decade is to be accompanied by a 30% growth in the number of tenure track faculty. The Department receives more NIH funding than any comparable department and was ranked third nationally in the last NRC rankings.

The review committee opened its report with the following paragraph:

> "The Bioengineering programs at the University of Washington are outstanding. The ideas that arise from investigators in the various research programs are innovative and far-reaching, arguably the best in the world. Faculty, graduate students and undergraduate students are enthusiastic about their accomplishments and opportunities. The programs and the individuals within them have been and continue to be among those setting the national agenda for Bioengineering as it has emerged as an academic discipline."

Continuing, the committee reported that, "The chair has a clear vision of what the Department is, what it needs to become, and the path it must follow to get there. He is admired by faculty and students for his energy, enthusiasm, devotion, attention to detail and plain hard work."

The committee had only one serious concern: space. This issue has been addressed to the satisfaction of the Department by the University administration and through the Department's continuing success with the Whittaker Foundation. The combined commitments appear to assure that a new building will be brought on line simultaneously with the planned growth in the BS program and increased number of faculty over the next several years.

The review committee noted that the increase in the undergraduate program is going to be a major challenge for this Department, which has been highly focused on its research and graduate programs with only a small and highly selective undergraduate program. The committee warned of the risk of degrading a Department with "stellar status to merely good," but noted that the Department was aware of the risk and that the faculty were committed to ensuring that degradation not occur. The committee noted that the Department will benefit from its clearly articulated strategic vision, which identifies five major thrusts: distributed diagnosis and home health care, engineered biomaterials, molecular bioengineering and nanotechnology, medical imaging and image-guided therapy and computational bioengineering. The Department knows where it must invest to remain competitive.

The review committee commented that the research faculty serve a vital function within the Department and make significant contributions to all programs. It urged the Department to ensure that the research faculty are appropriately compensated.

The Department appreciated the review committee's insight and comments. The Graduate School Council noted that everything needed for continued success was in the wings. Assuming all the commitments to support the expansion of the undergraduate program and faculty materialize, this outstanding Department will continue to perform as it has done. It absolutely merits the investments that have been committed by the University and the Whittaker foundation.

Attachment

c: Richard L. McCormick, President
Debra Friedman, Associate Provost for Academic Planning
Denice D. Denton, Dean, College of Engineering
John Slattery, Associate Dean for Academic Programs, The Graduate School
Yongmin Kim, Professor and Chair, Department of Bioengineering
Members of the Bioengineering Review Committee:
Robert C. Spindel, Professor, Applied Physics Laboratory (Committee Chair)
Albert Fuchs, Professor, Physiology and Biophysics
Getchen Kalonji, Professor, Materials Science and Engineering
Roger C. Barr, Professor, Biomedical Engineering, Duke University
Linda Chambers Lucas, Professor and Chair, Biomedical Engineering, University of Alabama, Birmingham
Graduate School Council
David Nixon, President, Graduate and Professional Student Senate
Augustine McCaffery, Assistant to the Dean, The Graduate School