

Approved by the Board of Trustees,  
May 19, 2005

Board Meeting  
May 19, 2005

ESTABLISH THE DOCTOR OF PHILOSOPHY IN ORAL SCIENCES,  
COLLEGE OF DENTISTRY, CHICAGO

**Action:** Approve the Establishment of the Doctor of Philosophy in Oral Sciences, College of Dentistry, Chicago

**Funding:** No Funding Required

The Chancellor at Chicago, with the advice of the Chicago Senate, the Graduate College, and the College of Dentistry, recommends approval to establish a new graduate degree, the Doctor of Philosophy in Oral Sciences.

The College of Dentistry proposes a new Ph.D. program in Oral Sciences for the training of oral health faculty/researchers for the 21<sup>st</sup> century. Facing a shortage of more than 500 faculty/researcher positions among the 55 dental schools across the nation, the dental profession has taken steps during the last decade to replenish the supply of oral health faculty/researchers. In spite of considerable investment of resources by the National Institute of Dental and Craniofacial Research (NIDCR) to fill the void, the shortage has intensified.

The proposed program is specifically designed to recruit dental educators/researchers for the future. Approximately 10 percent of faculty positions in academic dentistry are unfilled because of a lack of qualified candidates. With the average age of a dental researcher at greater than 55 years, this problem will only worsen during the next decade. Without qualified faculty, the education of future dental

practitioners will suffer and oral health research will not keep pace with the rapidly developing field of biomedical research.

The Ph.D. in Oral Sciences will play a significant state and national role in developing students in this important field. The program will be multidisciplinary and interdisciplinary and will collaborate with the Graduate Education in Medical Sciences (GEMS) program and with other programs in the health sciences and the College of Engineering. Graduates of the program will become faculty members in the two Illinois dental schools and leaders in organized dentistry, e.g., the American Dental Association. Innovative research during their training and afterwards will lead to the development of new products/procedures in both academic and corporate facilities.

The proposed program requires successful completion of 96 semester credit hours including a core curriculum, electives in an area of concentration, research, and dissertation. The core curriculum provides a strong base in the fundamentals of biochemistry, molecular and cell biology, and integrated physiology to supplement the basic science curriculum already mastered. In the concentration, students will take courses to develop background in their research areas. Initially, three areas of concentration will be offered: (1) Cellular, Molecular, and Developmental Biology; (2) Biomaterials Science; and (3) Microbiology and Immunology. In addition to course work and research, students will be required to successfully pass a preliminary examination, which is the gateway to work full time on the dissertation. Finally, students must prepare and successfully defend the dissertation. The critical outcome for the dissertation is publication-quality research.

The faculty members in the College of Dentistry and the collaborating programs will deliver the instruction for the Ph.D. in Oral Sciences. Consequently, there is no need for new state resources.

The board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes*, *The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The Vice President for Academic Affairs concurs with this recommendation. The University Senates Conference has indicated that no further Senate jurisdiction is involved.

The President of the University recommends approval, pending further review by the Illinois Board of Higher Education.