

**MERGER OF THE DEPARTMENTS OF BIOCHEMISTRY AND MOLECULAR
BIOLOGY
AND IMMUNOLOGY & MICROBIOLOGY**

Recommendation

It is recommended that the Board of Governors approve the merger of the Departments of Biochemistry & Molecular Biology and Immunology & Microbiology into a new Department of Microbiology, Immunology & Biochemistry in the School of Medicine, effective Winter 2017.

Description of Request

The purpose of the proposed merger is to align the School's strategic vision and resources to support the viability and success of its teaching and research programs. The proposed merger will strengthen the educational and teaching components of these basic science departments and the university's research portfolio. Merging these two departments will combine their research and teaching strengths, utilizing Immunology & Microbiology's focus on immunotherapy and Biochemistry & Molecular Biology's focus on emerging technologies to become a Center of Excellence in inflammatory processes which lead to diseases as diverse as cancer, cardiovascular disease, infectious disease, stroke, diabetes, digestive disorders, rheumatoid arthritis, osteoporosis, Alzheimer's, eye diseases, among others. This merger will strengthen the research without any adverse effect on the education of medical or graduate students; School of Medicine faculty will continue to prepare courses and fill all teaching assignments with support of subject-matter experts. Further, this merger will create economies of scale and a critical mass resulting in a more effective academic program. Combining the talents within these two departments will foster a scholarly environment that is critical to research and graduate education.

Background: Biochemistry and Molecular Biology

Biochemistry and Molecular Biology have become central to the biological changes transforming the life of all humans and living organisms. Molecular biology has become wide spread among life sciences since the 1990's and has transformed the traditional area of biochemistry with a renewed focus on human disease. The department's research programs range from investigations of the detailed interactions of biological molecules to broad studies of evolutionary processes. The department has undergone a major expansion in the area of structural biology.

Faculty: The department has 10 faculty members, decreased from 17 in 2008, including an interim Chair, one Assistant Professor, three Associate professors, one Associate Professor of Research and five Professors.

Teaching: The department provides a major contribution to the SoM MD Year 1 Medical Curriculum by teaching the fundamental Biochemistry course. The department also offers 15 post-graduate courses, as well as one Interdisciplinary Biomedical Sciences course.

Submitted by: Keith E. Whitfield, Provost

Enrollment: The department currently has 11 Master's students, one MD/PhD student, and 11 PhD students including 1 new PhD candidate in Biochemistry. All 11 Master's students and 4 PhD candidates are currently working with faculty with no extramural support.

Research: Total annual sponsored program activity for FY 2016 is \$773k. There are several R01 grant applications that have been submitted during the last year.

Background: Immunology/Microbiology

The disciplines of immunology and microbiology are critical to medical and biological sciences, with major roles in cancer therapy, vaccines, and global eradication of disease. The disciplines arose out of the study of infectious diseases and continues to be an important medical challenge in the U.S. and throughout the world. The Department of Immunology and Microbiology has strengths to develop innovative, collaborative interdisciplinary programs in biomedical science, and promotes and supports immunological and microbiological research throughout Wayne State University. It is key to developing treatments to help manage and reduce debilitating effects of human disease.

Faculty: With recent retirements of 4 faculty, the department has 7 faculty members, including an interim Chair, one full Professor, four Associate Professors, and one Assistant Professor.

Teaching: The department provides a major contribution to the Year 2 Medical Curriculum by teaching the fundamental Immunology & Microbiology and Infectious Disease course. The department also offers 19 graduate courses as well as one Interdisciplinary Biomedical Sciences course.

Enrollment: The department currently has three Master's students and seven PhD students. All Master's and PhD students in this department are working with faculty with no extramural support.

Research: The overall focus of the Department's research is Molecular Pathogenesis and includes the following areas: host-pathogen interactions, infectious agents and chronic diseases, innate immunity and inflammatory responses to infectious agents, autoimmunity and neuro-immunology, vaccine technology, cancer therapeutics and biodefense/bioterrorism. There are several R01 grants applications that have been submitted during the last year from this department.

Background: National Perspective

Mergers of these two departments have occurred at other institutions. The University of Tennessee Health Sciences Center at Memphis, for example, created a Department of Microbiology, Immunology and Biochemistry in 2004. Once fully implemented, the new department is operating in defined sections while collaborating around research concentrations

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including Bacterial Pathogenesis, Biochemistry, Cell Biology, Cell Signaling, Genomics and Bioinformatics, Immunology, Protein Chemistry and Virology. The University of Tennessee has not experienced negative effects on teaching, enrollment, research, or faculty recruitment resulting from implementation of this innovative structure.

Program Administration of New Department

In November 2016, the Dean of the School of Medicine appointed a permanent chair in the department of Immunology & Microbiology. It is the intent that this chair will assume all responsibility for the financial, human resource, grants management, development, and student related matters previously located within Biochemistry. This ensures that the Biochemistry program will have strong governance in place during the 2017 academic year. Once this merger becomes effective, the next step will involve a series of faculty meetings to develop a mission statement and strategic plan for the next three years.

Budget and Resource Requirements

There will be no additional funds required for FY 2017. All funding for the merger will be secured through general funds and non-recurring funds provided through the School of Medicine. While there is currently a search for one faculty line in process for FY 2017 in immunology, the chair will be expected to develop a faculty recruitment plan over the next five years to enhance the core teaching and research efforts of the new department.

Accreditation

The merger of this department will have no impact on current or future accreditations for the School of Medicine or these departments.

Approvals

The proposal for the merger is supported by the faculty of both Departments and has been approved by the School of Medicine Faculty Senate, and Jack Sobel, Dean of the School of Medicine.