BACKGROUND AND REQUEST

NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE
Master of Science and Doctor of Philosophy in Integrated Pharmaceutical Medicine

RECOMMENDATION

The Master of Science and Doctor of Philosophy degrees in Integrated Pharmaceutical Medicine meet the Chancellor's standards for graduate degree programs. The Regents' Advisory Committee on Graduate Study (RACGS) voted to endorse the program after reviewing the concerns of some RACGS members that the proposed degree programs duplicate existing graduate programs in the state.

Request: The Northeastern Ohio Universities College of Medicine and Pharmacy (NEOUCOM) requests approval for a Master of Science and Doctor of Philosophy in Integrated Pharmaceutical Medicine.

Program Purpose/Mission: Consistent with its mission of providing for the health needs of the citizens of Ohio and, in particular, northeast Ohio, NEOUCOM seeks approval to offer the Master of Science and Doctor of Philosophy degrees in Integrated Pharmaceutical Medicine. The College of Pharmacy curriculum and its integration with the College of Medicine curriculum provides a foundation for the development of a graduate program in Integrated Pharmaceutical Medicine. The proposed program will offer a unique and exciting new direction in the training of graduate students by integrating traditional pharmaceutical sciences with the principles of medicine. Students graduating from this program will have career opportunities in academic institutions, pharmaceutical companies, the Food and Drug Administration and National Institutes of Health as researchers, professors and regulatory scientists.

Enrollments: The anticipated initial class size will be up to five students. As the program develops, the enrollment will be allowed to grow toward 15 students, but not until sufficient time has passed to evaluate the fiscal and academic implications of increasing the size of the program.

Curriculum: The proposed doctoral curriculum will be 90 total semester credit hours. All doctoral students in the program will be required to complete 45 hours of didactic study, 30 hours of research and 15 hours of dissertation work. Additional core and elective courses will be developed both internally and through collaboration with appropriate programs at NEOUCOM's partner universities as the program evolves. All master's degree students will be required to complete 25 hours of core curriculum didactic study, 10 hours of research, and 10 hours of thesis work.

Faculty, Facilities and Resources: The administrative structures for supporting the proposed program currently exist within NEOUCOM. The Office of Graduate Education will oversee the program and the Graduate Coordinating Committee will administer the program. Currently there

are more than 20 full-time faculty members, who will form the initial core of the graduate faculty for the proposed program. Additional new facilities will not be required for the proposed program. Ongoing renovations of existing facilities include the establishment of a pharmaceutical teaching laboratory, a drug information center, flexible seating classrooms and small group rooms. The laboratory will include individual student workstations for teaching in pharmaceutics, pharmacy calculations, compounding, prescription processing and a smaller lab for teaching sterile dosage forms. NEOUCOM intends to provide initial support if state funds are not available. NEOUCOM has committed $270,000 to support an incoming class of five students for up to six years of graduate study. This level of commitment assumes some state funding at the master's level, and support from extramural grants for two students for four years. Although this funding model assumes a total of six years of graduate study, the intent will be to target a degree completion in five years, which would lessen the required financial commitment.

Evidence of Need: The *American Association of Pharmaceutical Scientists (AAPS) Pharmaceutical Technologies Section Education Committee* report (PTSEC) of 2006 noted that a significant shortage of entry-level pharmaceutical scientists exists, and fewer colleges of pharmacy in the U.S. focus on the pharmaceutical sciences needs of the industry. A decline in U.S. trained scientists would result in the exportation of product development activities to foreign countries. In Ohio, there are currently only three universities that offer an M.S. degree in pharmaceutical sciences—The Ohio State University, the University of Toledo and the University of Cincinnati. Ohio State University and the University of Cincinnati grant a Ph.D. degree in pharmaceutical sciences, and the University of Cincinnati offers a Ph.D. degree in molecular, cellular and biochemical pharmacology. NEOUCOM envisions collaborating with existing graduate level biomedical research programs at the University of Akron, Case Western Reserve University, Wright State University and Youngstown State University, and continuing its 20-year partnership with Kent State University's School of Biomedical Sciences, in order to support strong regional efforts in biomedical research. Careers in Integrated Pharmaceutical Medicine encompass four main groups of scientists—those in the pharmaceutical industry, those employed by medical regulatory bodies, those in independent research organizations and those wishing to enter an academic career in colleges of pharmacy or medicine. Graduates of the proposed program at NEOUCOM are expected to provide a pipeline for postdoctoral programs and entry-level academic and industrial programs regionally and across the state.

End of Comment Period: September 15, 2009
No Comments Received, Recommend Approval

Approved	
	9/16/09
Eric D. Fingerhut, Chancellor	Date