

**DATE:** January 26, 2006

**SUBJECT:** University of Tennessee Health Science Center, Master of Science  
in Cytopathology Practice

**ACTION RECOMMENDED:** Approval

**BACKGROUND INFORMATION:** The UTHSC Cytopathology Program was one of the first programs to develop in the early 1950's to train laboratory professionals in the area of evaluation and diagnosis. In the 1970's, this was among the first programs to advance from certificate to baccalaureate degree program. Today, it remains one of the oldest existing cytopathology programs in the country and the only program in the State of Tennessee.

The profession has historically been based on the assessment of cells to determine the presence or absence of abnormalities indicative of cancer, precancerous and other diseases. The skills necessary to perform and interpret the findings from these tests are needed to ensure accurate diagnosis, prognostic assessment and appropriate triage of patients. The proposed program will provide the training to qualify graduates for employment in the field of biotechnology where the workforce will be greatly needed in the future. With the advent of automation in the cytopathology laboratory and the focus on reduction of medical errors, the need to develop greater skills is imperative. The medical liability risk in the field of cytopathology is among the highest in health care. Professionals need to have the highest regard for the patients and knowledge of risk management. The increasing complexity in the field of cytopathology has reinforced the need to enhance the curriculum.

**PROPOSED START-UP DATE:** Fall 2006

Commission staff has reviewed program proposals according to the academic standards adopted by the Commission on November 14, 2002. Each standard is referenced below.

**1.1.20A MISSION:** The proposed program is consistent with the role and score of the university mission "to provide a stimulating academic environment for its students in an urban setting." The university, "through its research, teaching and outreach roles responds to individual needs, such as the support of health care and preventive health services."

**1.1.20B CURRICULUM:** The current baccalaureate program is a 3 + 1 program requiring 90 hours of pre-requisite coursework plus one year in the professional component including 44 hours for a total of 134 credit hours. The proposed new curriculum at the master's level will better reflect the skills and responsibilities required in the future. The proposed 3 + 2 curriculum requires 85 hours of pre-requisite coursework and 72 hours in the professional

component for a total of 157 credit hours. The additional content and development of new courses and skills requires extending the professional component of the cytopathology curriculum. Under this proposal the present Bachelor of Science Degree program in Cytopathology would be replaced with a master's degree program.

<u>Courses</u>	<u>Credit Hours</u>
Core Requirements	53
Seminars	7
Practicum	12

**1.1.20C ACADEMIC STANDARDS:** To be eligible for consideration for admission into the MCP program, applicants must meet the following requirements:

1. completion of the required pre-requisite coursework with a grade of “C” or better in each course;
2. minimum grade point average of 3.0 OR minimum grade point average of 2.5 with a satisfactory score on the GRE;
3. submit official transcripts of above coursework;
4. personal interview with members of the admissions committee;
5. foreign applicants whose native language is not English must submit results of TOEFL, with minimum score of 550;
6. completed application form including an essay describing the applicant's reasons for choosing the profession and their career goals. A non-refundable application fee must accompany the application;
7. pre-professional advisory committee recommendation from the college or university attended or two letters of recommendation; and
8. ability to meet published technical standards of the College of Allied Health Sciences and the Program in Cytopathology Practice.

Student Projections	<b>Projected Program Productivity</b>		
	Full-time Enrollment	Part-time	Graduates
Year 1	5	0	0
Year 2	10	0	5
Year 3	10	0	5
Year 4	10	0	5
Year 5	10	0	5

**1.1.20D FACULTY:** Funding for an additional full time faculty member has been requested within campus allocations. The proposed program plans to convert a faculty member recently hired with grant funds, to a fully funded tenure track position. The program already has three full time and six part time qualified and experienced faculty.

**1.1.20E LIBRARY RESOURCES:** No additional library resources will be needed. The University of Tennessee Health Science Center Library serves as a resource library for the program. All relevant cytopathology journals are already available in the library or in electronic format. The program also has an extensive on-site library of relevant

texts for use by students and faculty. The program will add current references on an annual basis as required by the accrediting agency.

**1.1.20F ADMINISTRATION/ORGANIZATION:** The program will continue to be administrated within the existing Department of Clinical Laboratory Sciences which is one of the five departments within the College of Allied Health Sciences. The College is one of seven colleges in the UTHSC. Upon approval the current program director for the baccalaureate program will direct the Masters in Cytopathology Practice. Twenty-five percent of the program director's time will be devoted to administrating the program.

**1.1.20G SUPPORT RESOURCES:** The current UTHSC program has affiliation agreements with 17 institutions for the clinical rotation of students. All facilities have agreed to continue to provide clinical experiences for students in the Master of Cytopathology Practice program.

**1.1.20H FACILITIES/INSTRUCTIONAL EQUIPMENT:** No additional facilities or renovations are required to implement the proposed program. Minimum equipment (\$14,000) is required for a molecular laboratory for students in the department. Costs have been budgeted and will be addressed internally.

**1.1.20I STUDENT/EMPLOYER DEMANDS:** There are currently only 46 programs in the United States, which produces less than 300 graduates for the profession each year. The existing programs in the country that currently offer a master's level training report a significant increase in both the number and quality of applicants. The UTHSC has surveyed baccalaureate level graduates of the program for the last 4 years to determine if a move to the master's level was warranted and if there would be interest in the program. One hundred percent of the respondents agreed the program should be lengthened from one year to two years and one hundred percent also indicated that they would have attended the program even though it would be longer provided a Master's degree was awarded at the end.

Surveys from two national professional organizations over the past 4 years have shown vacancy rates in cytopathology as high as 39 percent. The workforce in a small profession such as cytopathology fluctuates dramatically in a short period of time. Based on demographic data from recent surveys, more than 72 percent of the current laboratory workforce is greater than 40 years of age. There are inadequate numbers of certified staff entering the workforce to replace the number of laboratory staff expected to retire in the next three to five years.

**1.1.20J NO UNNECESSARY DUPLICATION:** Program duplication is not an issue. Not only is the baccalaureate program one of the oldest existing cytopathology programs in the country, it is the only program in the State of Tennessee.

**1.1.20K COOPERATIVE INSTITUTIONS:** None indicated.

**1.1.20L DESEGREGATION:** The program will not impede the state's effort to achieve racial diversity. The Department of Clinical Laboratory Sciences including the current baccalaureate degree program has a history of recruiting, enrolling and

graduating under represented minority students. The program's enrollment of African-American students has ranged from 20 percent to 60 percent over the last five years. Using funds from a Geier Faculty Grant, the program has recently hired an African-American faculty member to enhance recruitment of African American students and to provide a mentor/role model for those enrolled in the program.

**1.1.20M ASSESSMENT/EVALUATION AND ACCREDITATION:** Student achievement of programmatic goals will be evaluated by an analysis of outcomes based on specific program objectives. Other program evaluation methods include student performance on comprehensive examinations, graduate certification examination scores, student and faculty resource assessment surveys at the end of the program, student evaluations of courses and faculty, graduate satisfaction surveys, and employer surveys to assess the graduates' job performance in relation to the program's defined objectives and outcomes.

Program evaluations are the responsibility of the program director. Evaluations will be conducted annually. The results of evaluation data will be shared with faculty for analysis and future planning.

**1.1.20N ARTICULATION:** N/A

**1.1.20O EXTERNAL JUDGMENT** (Graduate Programs): Shirley Greening, Chair and Professor, Department of Bioscience Technologies, at Thomas Jefferson University served as consultant to provide the expert external review. Professor Greening noted that the program proposal for Masters of Cytopathology had been well developed and that UTHSC is well positioned to advance to the graduate level. She recommended approval and provided a positive assessment of the readiness and capability of the faculty to implement the program.

**1.1.20P COST/BENEFIT/SOURCE:** The proposed MCP entry-level program will appeal to students who have completed three years of college. It will essentially allow them to complete a bachelors and a professional graduate degree in five years rather than six. As one of the first among a small number of programs in the nation, the University of Tennessee Health Science Center will have an opportunity to have a leadership role in training Cytopathology Practitioners. The baccalaureate program will be phased out and resources will be used for the implementation of the MCP, therefore requiring no additional resources.

Financial Projections						
Compensation		Year 1	Year 2	Year 3	Year 4	Year 5
Administrative Compensation	Salary	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Benefits					
	Total					
Faculty Compensation	Salary	\$55,000	\$57,000	\$59,000	\$61,000	\$63,000
	Benefits					
	Total					
Clerical/ Support Staff Compensation	Salary	NA	NA	NA	NA	NA
	Benefits					
	Total					
Library		NA	NA	NA	NA	NA
Equipment		\$20,000*	----	----	----	----
Travel		\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Other (Specify, e.g. Grad Assts., etc.)		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
TOTAL		\$89,500	\$71,500	\$73,500	\$75,500	\$77,500

\*equipment: one-time cost

**1.1.30 POST APPROVAL MONITORING:** An annual performance review of the proposed program will be conducted for the first five years following approval. The review will be based on goals established in the approved program proposal. At the end of this period, campus, governing board, and Commission staff will perform a summative evaluation. These goals include, but are not limited to enrollment and graduation numbers, program costs, progress toward accreditation, library acquisitions, student performance and other goals set by the institution and agreed upon by governing board and Commission staff. As a result of this evaluation, if the program is found to be deficient, the Commission may recommend that the governing board terminate the program. Copies of such recommendation will be forwarded to the Education Committees of the General Assembly. The Commission may also choose to extend this period if additional time is needed and requested by the governing board.