

## APPENDIX L

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July 29, 2005

### MEMORANDUM

To: Committee on Educational Planning, Policies and Programs

From: Molly Corbett Broad

Subject: **Establishment of the Pisgah Astronomical Research and Science Education Center (PARSEC)**

#### Request to Establish

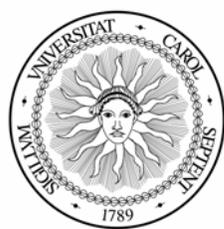
In July 2003, the University of North Carolina at Asheville received authorization to plan the Pisgah Astronomical Research and Science Education Center (PARSEC). The planning is now complete and UNCA has submitted a request to establish PARSEC as an inter-institutional research center of the University of North Carolina. The Center would be a collaboration among UNCA, Appalachian State University, North Carolina Agricultural and Technical State University, UNC-Chapel Hill, UNC-Greensboro, UNC-Pembroke, and Western Carolina University, with facilities available to all other institutions. The following sections briefly summarize the information provided in the proposal, in accordance with Chapter 400.5 [R] in the *University of North Carolina Policy Manual*.

#### Goals and Objectives

The mission of PARSEC is to provide students and faculty from across the UNC system with access to world-class, state-of-the-art astronomical instrumentation in a setting that serves as a conduit for education and research opportunities. The Center will use the facilities, equipment, and infrastructure of the Pisgah Astronomical Research Institute (PARI), a 200-acre campus located approximately 30 miles southwest of Asheville, to bring research, science education, and public outreach to a broad cross-section of users in a variety of ways while sustaining and promoting financial independence.

Specifically the Center will:

- Stimulate new and ongoing university scholarship across UNC by providing hands-on accessibility and experience with instrumentation for undergraduate and graduate students and faculty, attracting graduate students from other states and striving to keep North Carolina graduate students in state;
- Obtain infrastructure at PARI necessary to support increasing research and education by generating external funding and providing administrative support to projects;



Appalachian State  
University

East Carolina  
University

Elizabeth City  
State University

Fayetteville State  
University

North Carolina  
Agricultural and  
Technical State  
University

North Carolina  
Central University

North Carolina  
School of  
the Arts

North Carolina  
State University  
at Raleigh

University of  
North Carolina  
at Asheville

University of  
North Carolina  
at Chapel Hill

University of  
North Carolina  
at Charlotte

University of  
North Carolina  
at Greensboro

University of  
North Carolina  
at Pembroke

University of  
North Carolina  
at Wilmington

Western Carolina  
University

Winston-Salem  
State University

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- Generate multidisciplinary research collaborations and educational programs across UNC and other universities for undergraduate, graduate, and post-doctoral students and life-long learners in the astronomical sciences and other related disciplines;
- Actively secure financial stability through new initiatives and collaborations with public (federal and state) and private sources, conducting aggressive grant writing and contract development activities, and developing a PARSEC endowment fund.

### **Relevance to University and Institutional Mission**

PARSEC will support the missions of the University and collaborating institutions by encouraging multidisciplinary research and education that will enhance curriculum and scholarship on different levels and across a variety of areas. This Center will provide a unique availability to cutting edge instrumentation both locally and remotely.

### **Anticipated Effects on Instructional Programs**

PARI is currently actively engaged with several departments and programs at UNCA and UNC-CH. It is anticipated that these collaborations will grow and expand to programs at other UNC institutions – including NC A&T's Space Science Program, ASU's observatory, WCU's optics and photonics program, and astronomy programs at UNCP & UNCG. A distance learning facility is currently being planned that would allow classes to be taught at PARI and made available to students anywhere in the UNC system.

### **Administrative Structure**

UNCA will provide administrative and fiscal oversight to the Center. A director for PARSEC will be chosen through a national search to identify an individual of significant stature in the research community, with the PARSEC Board acting as search committee. The PARSEC Board will consist of nine members: two permanent UNCA members, two permanent PARI members, at least three others from the UNC system, and up to two additional from outside of UNC. This Board will meet at least twice annually and will have the responsibility for operation and long-term planning as well as ensuring that PARSEC is meeting its commitment to shareholders. The Director will report to the Board, which will report to UNCA's Chancellor and ultimately to the UNC Vice President of Research and UNC President.

The PARSEC relationship with PARI will be governed by a legally binding Master Agreement to stipulate details of funding, revenue, and intellectual property. Additionally, PARSEC will be advised on matters relating to research and instructional programs by a Joint Scientific Advisory Committee that also functions as Scientific Advisory Committee to PARI.

PARSEC will also have affiliated faculty membership who are active participants in the research and educational programs. Initially they will be from UNC universities, but membership may later be extended to faculty outside of the system who are active users of the facilities.

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### **Budget and Anticipated Sources of Funding**

PARSEC income streams will come from grants, contracts, donors, state funding, and federal support. Expenditures will fall into three categories: resources usage, instruments, and facilities. The preliminary 5-year budget anticipates income to cover all necessary expenditures.

### **Space and Capital Needs**

The radio and optical observatories at PARI provide a uniquely designed site for PARSEC, however several components need additions and instrument enhancements to fully meet the needs of the astronomical research and science education mission. Long-term capital plans include enhancements for the radio telescopes, installation of a 1.1 meter optical telescope, and development of student/astronomer housing and public education facility.

Immediate space needs include office and work space for the director and support staff. Projected needs include housing, lab space, and an educational outreach complex. This will be contracted from PARI, which has ample office and parking space. All space needs will be addressed through external funding.

### **Recommendation**

It is recommended that establishment of the Pisgah Astronomical Research and Education Center (PARSEC) be authorized with UNC-Asheville serving as the administrative institution.