

September 19-21, 2007

**ITEM 136-2006-R0907 Approval to Establish an Astrobiology and Biogeocatalysis Research Center; Montana State University Bozeman**

**THAT:** The Board of Regents of Higher Education Authorizes Montana State University-Bozeman to Establish an Astrobiology and Biogeocatalysis Research Center.

**EXPLANATION:** Montana State University-Bozeman seeks authorization to create the MSU – Astrobiology and Biogeocatalysis Research Center (ABRC). The overall goal of the center is to pursue fundamental studies on prebiotic chemistry and explore the role for iron-sulfur compounds in the transition from the nonliving to the living world. The research bridges the disciplines of biochemistry and geochemistry and will train the next generation of scientists with a multi-disciplinary view of molecular catalysis. This broad-based training will be valued in basic and applied research settings.

The National Aeronautic and Space Administration has pledged more than six million dollars over a five year period to establish the center in the form of a competitively funded project to establish a node of the NASA Astrobiology Institute. Astrobiology is devoted to the scientific study of life in the universe - its origin, evolution, distribution, and future. It brings together the physical and biological sciences to address some of the most fundamental questions of the natural world: How do living systems emerge? How do habitable worlds form and how do they evolve? Does life exist on worlds other than Earth? The tremendous breadth and depth of this endeavor requires interdisciplinary investigation in order to be fully appreciated and examined.

The NASA NAI currently consists of 16 centers nationwide and includes institutes at: University of California at Berkeley, California Institute of Technology, Massachusetts Institute of Technology, NASA Ames Research Center and NASA Goddard Space Flight Center. The support for NASA Astrobiology Institute node and establishing an Astrobiology and Biogeocatalysis Research Center at Montana State University places MSU in an elite group.