

“BRAIN TRUST”—Research Challenge Trust Fund

Developing Mississippi’s intellectual infrastructure include building a reservoir of professors to develop new ideas and prepare our workforce for the high technology, highly skilled jobs of today and tomorrow.

Program Objective: Provide \$200 million in matching funds for experimental, commercial university and college research to aid in the recruitment and retention of the world’s best intellectuals.

- Beginning with Fiscal Year 2004 and for the next 10 years, \$20 million in bonds will be financed for use in strengthening Mississippi’s intellectual capacity by endowing chairs and professors at Mississippi’s research institutions, funding graduate student assistantships, sabbaticals with business and industry, and major equipment purchases. These funds should be matched on a 1:1 basis by each university participating increasing the value to \$400 million.
- In addition to recruiting professors, “Brain Trust” funds should be used to offer corporations and businesses university expertise to study problems and develop solutions.
- *Brain Trust* funds should be used to target scientific area that will build upon Mississippi’s strengths, including but not limited to:
 1. [Gerontology and Aging](#)—Become the nation's leading center for the integration of gerontological studies and multidisciplinary research on aging. The program will feature research and graduate education in biomedical and social science approaches to aging and will strengthen associated programs in clinical geriatrics.
 2. [Advanced Medical Research](#)—Develop integrated programs in neuroscience, and genetics and molecular biology. These concentrations will build on four nationally prominent graduate programs in the College of Medicine: anatomy and neurobiology, biochemistry, microbiology and immunology, and physiology.
 3. [Clinical Pharmaceutical Sciences](#)—Prepare new health-care professionals to become leading scholars in the evaluation of contemporary drug therapies.
 4. [Toxicology](#)—Enhance the Graduate Center for Toxicology's expertise in chemical carcinogenesis and neurotoxicology.
 5. [Computer Science and Electrical Engineering](#)—Concentrate on specializations in distributed telecommunications, computing and networking systems, electromagnetics, and microelectronics.

6. [Materials Synthesis](#)—Develop the expertise in materials sciences necessary to sustain an interdisciplinary program between the departments of hard sciences and engineering. Research in materials sciences focuses on the synthesis, microstructure characterization, property prediction and measurement, and processing of novel materials.
7. [Plant Sciences](#)—Integrate strengths in several graduate concentrations, including crop science, plant pathology, plant physiology/molecular biology, plant science, soil science, horticulture and landscape architecture, and forestry.
8. [Biological Chemistry](#)—Build a prominent specialization with expertise in bio-organic, bio-inorganic and biotechnology applications.
9. [Management and Economics](#)—Strengthen faculty expertise in our Colleges of Business. The program will enhance business administration and economics degree programs, and add research strengths in macroeconomics, financial institutions, and economic development.
10. [Psychology of Substance Abuse and Prevention](#)—Enhance the research expertise of the psychology departments in the development and application of effective prevention strategies.
11. [Geography](#)-- Add faculty strengths in social theory and human geography, economic development, and environmental geography.