Grant Title: MATHEMATICAL COGNITION AND SPECIFIC LEARNING DISABILITIES (R01)

Grant Number: RFA-HD-07-005

Area of Research: Research which will contribute to knowledge of the key factors influencing the development and expression of learning disabilities in mathematics, and concomitantly provide the evidence base to inform the design of effective instructional interventions.

Release and Expiration: July 23, 2007 release; November 30, 2007 expiration.

Application Deadline: *Letter of Intent:* October 29, 2007; *Application:* November 29, 2007

Amount: $500,000-$750,000 per award. 4-6 awards.

Length of Support: 3-5 years.

Eligible Applicants: Public, state or private institution of higher education; nonprofit and for profit organizations; small business; State and Tribal Governments; Tribal organizations; Non-domestic entity; Hispanic-serving institution; historically black colleges and universities; Tribally controlled colleges and universities; Alaska Native and Native Hawaiian serving institutions; regional organizations; Eligible agencies of the Federal government; Faith-based and/or community based organizations.

Agency/ Department: NIH; NICHD

Summary: This funding opportunity is intended to stimulate innovative, multidisciplinary research which will contribute to our knowledge of the key factors that influence the development and expression of learning disabilities in mathematics, and concomitantly provide the evidence base to inform the design of effective instructional interventions. The overall objectives include: (1) identifying the critical etiological factors (e.g., cognitive, neurobiological, genetic) associated with persistent impairments in learning mathematical concepts and skills that are characteristic of children with mathematical learning disabilities (MLD); (2) developing explicit, measurable, and reliable criteria for differentiating MLD from more transitory mathematical *difficulties* (MD) which may be attributable to, among other reasons, developmental delays, disadvantaged child-rearing conditions, or poor instruction; and (3) develop and test well-defined, evidence-based treatment interventions, the effectiveness of which can be demonstrated to be both sustainable and generalizable. Advances in these domains should ultimately lead to improvements in the diagnosis, prevention, and remediation of this type of learning disorder. Research objectives *include, but are not limited to:* Establishing reliable and valid definitions and classification systems that can differentiate specific learning disabilities in mathematics from other factors and conditions leading to low achievement in mathematics; Examining whether children with MLD differ qualitatively (i.e., with respect to core or primary deficits) or quantitatively from those who are low in mathematics achievement but do not have a learning disability; Developing and testing models of subtypes of MLD, including efforts to determine precisely the ways in which children with variants of MLD differ from one another.

Detailed Information: http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-07-005.html