



Federation of Associations in  
Behavioral & Brain Sciences

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RE: Request for Information (RFI): NICHD Strategic Plan Fiscal Years 2020-2024  
Notice Number: NOT-HD-18-031

February 15, 2019

Dear Dr. Bianchi,

On behalf of the Federation of Associations in Behavioral and Brain Sciences (FABBS), I want to express our appreciation for the opportunity to submit comments on the proposed themes for the NICHD strategic plan for fiscal years 2020-2024.

FABBS represents twenty-three scientific societies and 58 academic departments whose scientific members and faculty share an interest in advancing knowledge through the sciences of mind, brain, and behavior. FABBS is strongly committed to the mission of NICHD, “to ensure that every person is born healthy and wanted, that women suffer no harmful effects from reproductive processes, and that all children have the chance to achieve their full potential for healthy and productive lives, free from disease or disability, and to ensure the health, productivity, independence, and well-being of all people through optimal rehabilitation.”

Understanding the human element of our most pressing challenges through research in behavioral and brain sciences has greatly benefited the health and well-being of children and families, and funding them will have continued benefits. Our scientists, some with funding from NICHD, have made important contributions to key advances in child health and development. In fact, many examples are included in NICHD [highlights](#). For example, research conducted by Catherine Lord, a psychologist, informed the development of diagnostic instruments for autism, having profound impacts for children with autism. Advances in teaching children with dyslexia are grounded on improved understanding of the relationship between neurophysiological processes and cognitive functions in supporting reading. NICHD continues to showcase accomplishments based on research in our fields, such as behavioral interventions to prevent dog bites and behavioral risk factors of life-threatening child birth complications.



We are concerned that the themes, as written, do not prioritize the very science that led to these advancements. A wide range of disciplines, beyond strictly medical, have served the mission of NICHD in the past and are positioned to increase knowledge and identify potential pathways to and interventions for healthier outcomes in the future. Accordingly, our scientists feel that the current themes are overly narrow in conception. FABBS recommends a broader definition of child health and human development that includes behavioral, emotional, cognitive, and social aspects of child well-being. The themes should include references to behavioral indices of both typical and atypical infant, child and adolescent development measures that are critical to understand disorders. For example, children with Type 1 diabetes may suffer from memory problems that can only be discerned with sensitive measures of behavior, and those measures suggest approaches to diabetic control and ways to assess its success.

We would also recommend rethinking and recasting of the themes to encompass development in context – most notably the racial/ethnic context. The U.S. and many parts of the world are becoming more racially and ethnically diverse than at any time in history. By most census projections, within the next 20-30 years, whites will no longer be the numerical majority racial group in this country and many of our institutions that impact child development such as schools will have no racial ethnic majority group. FABBS recommends that the NICHD strategic plan reflect awareness of dramatic demographic shifts that are rapidly changing our racial/ethnic context and the impact on child and maternal health.

In addition to comments on the overall document, below please find suggestions and concerns about individual themes, goals and opportunities:

### **Research Theme #1: Understanding Early Human Development**

FABBS appreciates and supports the emphases on early development and adolescence. We are, however, concerned about gaps in coverage, specifically the absence of the role of experience, and the diversity of experiences in development. The theme currently reflects a strong focus on the cellular level, omitting forces or factors that could impact the health of human development from the health of the parents to behaviors during pregnancy. FABBS recommends broadening this goal to encompass the range of questions and sciences needed to best support healthy development.

### **Research Theme #2: Setting the Foundation for a Healthy Pregnancy and Lifelong Wellness.**

While an important topic, this theme could be strengthened with the inclusion of research on mother-infant interactions. For example, a recent prominent study linked lower maternal stress with higher IQs for preterm children. As currently written, this theme would not capture the impact of those interactions. Another example is research on gestational and early-life stress using rodent models indicates long-lasting changes to both brain and behavioral systems. Research



has also shown changes in mother and/or infant communication during post-partum depression and autism. Social communication training interventions with parents have yielded some positive change in outcomes for the children.

### **Research Theme #3: Promoting Gynecological, Andrological, and Reproductive Health.**

As with Theme #2, FABBS recommends including language about the interaction between parents and fetus. Maternal mental health is crucial both in terms of the prenatal placental environment as well as the post-natal parental care the mother provides the infant. Whether the long-term changes in offspring produce a vulnerability (development of PTSD, anxiety, etc.) or resiliency to stress is an important current research focus. We also know that maternal and conspecific social support following stress exposure can reduce both physiological (hormone and brain activation changes) and behavioral effects of the stress experience (maternal or social "buffering").

### **Research Theme #4: Identifying Sensitive Time Periods to Optimize Health Interventions.**

FABBS scientists have expressed concerned about narrow focus on gestational and early development in this theme. Research suggests that in domains where there are sensitive periods, the time course of the period, including language, is longer than was initially believed. Defining sensitive time periods too narrowly might unnecessarily limit the potential of effective interventions. Additionally, given all that we know about the paramount importance of the socio-economic status of the baby as correlated with outcomes, we are disappointed that SES factors are not more central to the theme.

### **Research Theme #5: Improving Health During the Transition From Adolescence to Adulthood**

Contrary to the statement that "the period of adolescence is poorly understood," in recent years, FABBS scientists have greatly advanced knowledge about adolescence. The Society for Research on Adolescence and a growing number of high impact journals study the adolescent years. One of the most productive areas of research on adolescence in the past two decades is the work on brain development, including work by Laurence Steinberg. This work has been transformative in shaping how researchers and society view adolescence as a period of malleability. These findings have contributed to a number of highly significant policy changes such as relaxing of the punitive approach to juvenile delinquency including recent landmark Supreme Court decisions that have struck down overly harsh treatment of serious adolescent offenders like adolescent death penalty, life in prison without possibility of parole.



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Adolescence is increasingly being recognized as a uniquely different stage of development. FABBS encourages NICHD to consider including transitions from infancy to preschool to school to adolescence as well as from adolescence to adulthood.

**Research Theme #6: Ensuring Safe and Effective Therapeutics and Devices**

For theme 6, FABBS recommends explicitly including behavioral interventions when referring to therapeutics.

Thank for your leadership of NICHD and in the strategic planning process. We greatly appreciate the opportunity to comment on the draft themes being considered for the next NICHD strategic plan. FABBS looks forward to continuing to work together to better understand and support the health and development of children and families. Please contact me at [jbaron@fabbs.org](mailto:jbaron@fabbs.org) or 202.669.4834 if FABBS scientists might be of assistance in any way.

Sincerely,

Juliane Baron  
Executive Director

FABBS Member Societies: American Educational Research Association, American Psychological Association, Association for Applied Psychophysiology and Biofeedback, Association for Behavior Analysis, International Behavior Genetics Association, Cognitive Science Society, International Society for Developmental Psychobiology, Massachusetts Neuropsychological Society, National Academy of Neuropsychology, The Psychonomic Society, Society for Behavioral Neuroendocrinology, Society for Computers in Psychology Society for Judgement and Decision Making, Society for Mathematical Psychology Society for Psychophysiological Research, Society for Research in Psychopathology, Society for the Scientific Study of Reading, Society for Text & Discourse, Society of Experimental Social Psychology, Society of Multivariate Experimental Psychology, Vision Sciences Society