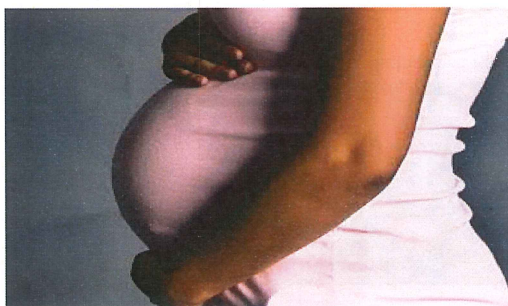


## Recruitment

Thanks to your enthusiastic participation, we are finally nearing the end of recruitment! We are currently inviting families expecting babies on or before September 30th, 2016 to participate in our study.

Help us spread the word by sharing this invitation with your neighbors, friends, and family!



## Research Stages

Study Schedule	
24 weeks pregnant	Questionnaires
32 weeks pregnant	Questionnaires, mother saliva sampling
1 month old	Questionnaires, MRI scan
6 months old	Questionnaires, behavioral observation, infant saliva sampling
12 months old	Questionnaires, mother interview
18 months old	Questionnaires, mother saliva sampling
24 months old	Questionnaires, MRI scan, behavioral observation, infant saliva sampling

\*\*\$100 bonus for completion of all stages

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Baby Brain & Behavior Project  
University of Wisconsin-Madison  
Waisman Center  
1500 Highland Avenue  
Madison WI 53705

Address Service Requested

## Baby Brain & Behavior Project

University of Wisconsin-Madison

Waisman Center \* 1500 Highland Avenue \* Madison WI 53705  
<http://conte.wisc.edu/bbb/>

Director:  
R. Davidson, Ph.D.

Collaborators:  
UW Dept. of Psychology  
UW Dept. Psychiatry  
Waisman Center

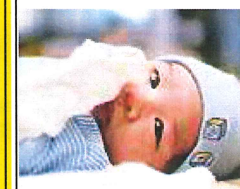
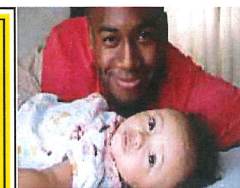
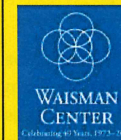
Feature Article:

*Birth to Two: A Critical Period of  
Brain and Behavior Development*

Elizabeth Planalp, Ph.D.  
Douglas Dean, Ph.D.



Funding for Research is provided by grant awards from the Silvio O. Conte Center for Basic Mental Health Research from the National Institute of Mental Health via grant P50-MH100031, Waisman Center, & private foundations.



Center for  
**healthyminds**  
UNIVERSITY OF WISCONSIN-MADISON

## Research Update

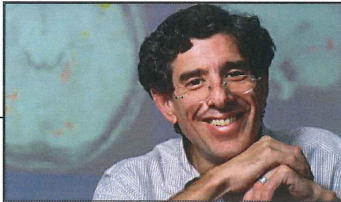
Dear families,

Our research family is growing! There are six active research sessions between pregnancy and 18-months of age. I am delighted to report that we have completed over 120 neuroimaging visits with infants at 1 month of age and nearly 100 behavioral visits with infants 6 months of age. Our research team has truly enjoyed meeting so many wonderful parents and babies. It has truly been one of our most fun research studies! I am deeply grateful for your enthusiasm for this research participation and sharing this special time of your lives with us.

Collectively, the research will yield an important developmental story about the interplay of biology, experience, and child well-being. Our preliminary analyses showed a relationship between 1-month brain structure and circuitry and observed child distress at 6-months. These preliminary analyses are some of the first to examine brain-behavior relationships during this early developmental period.

The 2-year imaging and behavior follow-up will help us learn about developmental trajectories that promote child well-being. You will be invited to participate around your child's second birthday. We are still enrolling women with due dates before September 30 and appreciate you sharing study contact information with pregnant women you know. Warmest wishes to you and your family this summer!

With deep gratitude,



Richard J. Davidson  
William James and Vilas Professor of Psychology and Psychiatry  
Founder, Center for Healthy Minds

## Fun Facts

The longest known pregnancy is reported to have lasted one year and ten days!

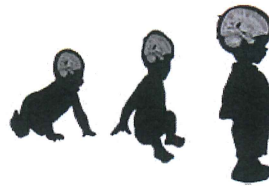
While newborn babies tend to cry a lot, they do not start shedding tears until 1-3 months of age. At birth, the tear ducts produce just enough tears to protect and lubricate their eyes.

One in every three babies is born with a birth mark!

## Featured Research

Birth to Two: A Critical Period of Brain and Behavior Development  
Elizabeth Planalp, PhD. and Douglas Dean III, PhD.

Parents experience first-hand how quickly their infants grow and change. Although there is still much to learn, we do know birth to two years of age is a critical period in brain and behavioral development. The brain is comprised of two types of nervous tissue. Grey matter acts as the processors of the brain and white matter acts like informational highways to connect grey matter structures. During development, white matter volume increases as connectivity between grey matter regions becomes stronger. **The time between birth and two years of age is a critical period during which infant brain development is most rapid.**



At the same time, infants are learning about the world around them. Early in infancy, emotions are often seen as simply positive or negative. By approximately one year of age, emotions are more easily differentiated and we can discriminate between joy and contentment, or fear, anger and sadness. Furthermore, it is around this age that infants begin to regulate their own emotions. Thus, during this same critical period (birth to two years of age) emotional development also occurs rapidly.

The Baby Brain & Behavior Project is one of the first to capture rich measures of both brain and emotional development during this early period. Although more data are needed, preliminary results reveal individual differences in how 1-month brain structures relate to 6-month behavior. A larger research pool will help us consider other questions such as gender differences and environmental correlates of infant behavior. The research sessions at 24-months will add to our knowledge of developmental pathways that promote child well-being during these critical years.



Elizabeth Planalp, PhD



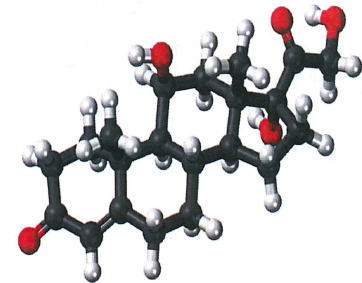
Douglas Dean, PhD

## Saliva Update

Important role of saliva in scientific research


Saliva testing reveals important information about the normal functioning of your body. Specifically, saliva contains regulatory hormones that impact your mood, energy, and even individual organ functions. Salivary hormone levels remain stable in the sample long after collection, so we can observe individual differences across samples in the same person and across many samples in different people.


Saliva samples from both mothers and infants help us learn about relationships between the regulatory systems of related individuals. Prior research has shown that some features of regulation are inherited, while others are more greatly influenced by experience. Combining unique saliva data with brain imaging and behavioral data provides a comprehensive picture of development and the nature of individual differences.



## Contact Us

Help us keep our records up to date. Please email or call us with your current telephone number/s and address. Also, we invite you to share our study information with your family and friends.

 [babybrain@mailplus.wisc.edu](mailto:babybrain@mailplus.wisc.edu)

 (608) 890-3073 (local)

