From the Study Team

Thank you for your time! None of the information we are learning would be possible without your generous help. We hope to share study progress and results through these newsletters.

The information you have shared will help make important contributions to our understanding of infant growth and health.

Thank you!

SPAN Study Team



Front: Drs. Fasil Tekola-Ayele, Katherine Grantz & Edwina Yeung
Back: Drs. Kunal Kathuria & Diane Putnick

SPAN Study of Pregnancy & Neonatal Health

WHAT'S INSIDE:

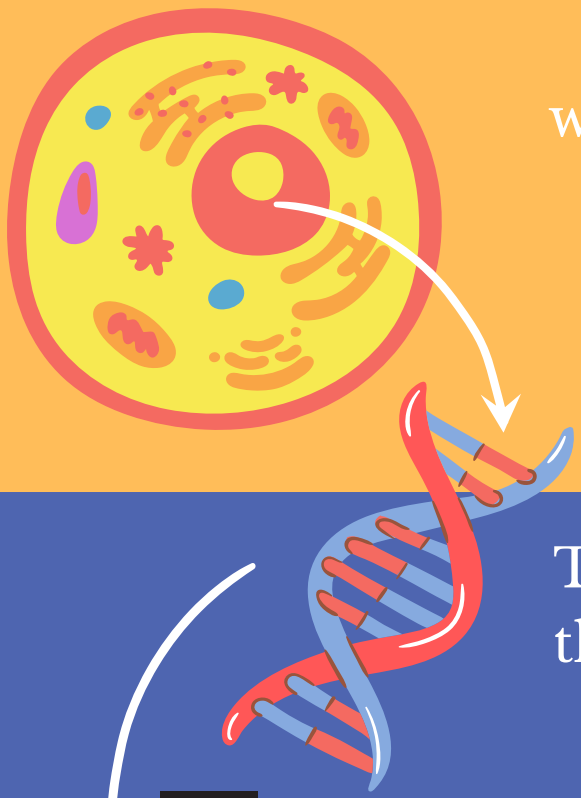
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NIH Eunice Kennedy Shriver National Institute of Child Health and Human Development

What is Epigenetics?



Your body holds trillions of cells with the same DNA sequence. These various DNA sequences carry information needed to instruct multiple jobs your body needs.

These instructions are communicated through the expression of your genes. Like the lights on a traffic signal.



<u>Green</u>
Your genes are expressed



<u>Yellow</u>
Gene expression is slowed down



<u>Red</u>
Gene expression is stopped

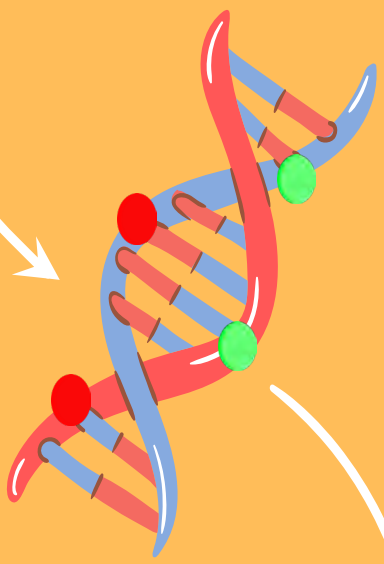


Epigenetic markers impact these traffic signals by telling some of your genes when to turn on and off. If a gene is turned on, it can become expressed and read like the words on a page.

Epigenetic markers can change based on our behaviors and environment. From where we live, to the foods we eat, how much sleep we get, and the amount of exercise we perform.



Epigenetics is the study of these changes in our genes. We can look at these changes by measuring epigenetic markers like DNA methylation. DNA methylation is represented as lights from a traffic signal on a DNA strand.



The biological samples you may have provided allow us to look for possible links with certain conditions, like heart health and gestational diabetes. These epigenetic markers may be related to health outcomes in children.

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Study of Pregnancy & Neonatal Health

Shoutout to Dads!



Dads play an important role in the health of their baby. That is why Dads play a unique role in this study. Thanks to you, we will learn more about how a father's health impacts their child. We thank all the dads in this study for their commitment and participation!