# Maternal Health Study Newsletter

#### Summer 2024



Did you know that cells between the mother and baby get exchanged during pregnancy?

Microchimerism Genetic & cellular material from one individual in another distinct individual

### Fetal Cells Maternal Cells

### STUDY GOALS

Some people only have a few fetal cells circulating during pregnancy and the postpartum period, while others have many! We want to know why individuals differ and if these circulating fetal cells are important for pregnancy health. To do this, we need to measure the amount of fetal cells during pregnancy and relate that to maternal immune markers.

Read more about microchimerism in our recent **<u>the Scientist</u>** interview <u>here</u>.

### UPDATES

Enrolled **20** pregnant people and DNA samples are being analyzed!



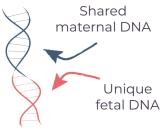
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## How do we find the fetal cells in the mother?

### Sample Collection!

To capture maternal DNA and immune cells, we receive extra tubes of blood during routine checkups across pregnancy and at labor. To capture fetal DNA, we collect cord blood. Mother Samples (maternal DNA) Cord Blood (fetal DNA)

### **Discover unique fetal DNA regions!**



We compare the DNA sequence of mother and baby to find the parts that are unique to each of them.

### Target the fetal cells!

Using a unique fetal DNA marker, we can count the fetal DNA in maternal blood.



### **COMING SOON!**

Did you know these cells can voyage across generations? We want to find other family member's cells in you! Help us collect spit from family members to track microchimerism ancestry!

Spread the word! We are actively recruiting!



For more information: https://momshealth.anth.ucsb.edu/home UCSB IRB: #21-07mux

