JANUARY 1, 2022 VOL. 07

MECONIUM NEWS

Exploring MEChanisms Of disease traNsmission In Utero through the Microbiome

Thank you for 7 years

what a year it has been!

AND YOUR HELP MADE ALL THE DIFFERENCE! LET US SHOW YOU WHAT YOUR FAMILIES HAVE HELPED US ACCOMPLISH THROUGHOUT THIS TOUGH YEAR. JUST TURN THE PAGE AND BEGIN ANOTHER CHAPTER WITH YOUR MECONIUM FAMILY!

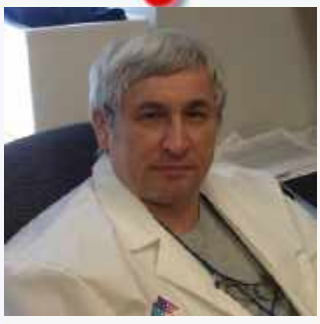
IN THIS ISSUE

Icahn School of Medicine at Mount Sinai

meet the team.


Manasi Agrawal, MD MS


Alexa Rendon, MS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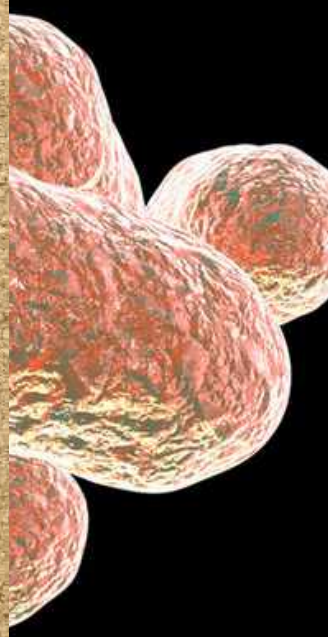
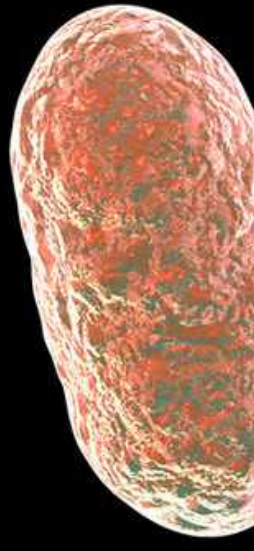
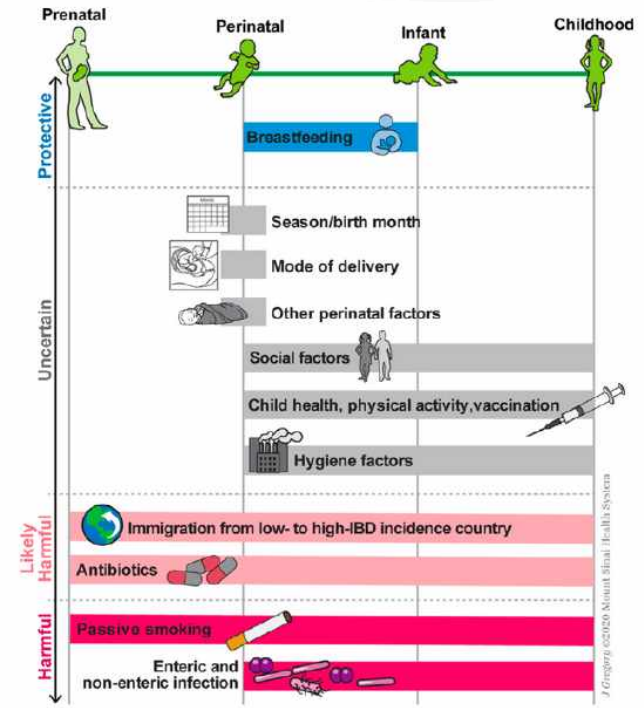




OUR LATEST PUBLICATION & PROJECTS

PUBLICATION >

EARLY LIFE EXPOSURES AND THE RISK OF IBD: SYSTEMATIC REVIEW & META-ANALYSES



M. Agrawal et al. / EClinicalMedicine 36 (2021) 100884

Background:
Early life exposures impact immune system development and therefore the risk of immune-mediated diseases, including IBD.

Objective:
Systematically review the impact of pre-, peri-, and postnatal exposures up to the age of 5 years on subsequent IBD diagnosis.

Findings:
Prenatal exposure to antibiotics and tobacco smoke, and early life otitis media were associated with IBD. Breastfeeding was protective against IBD.

Interpretation:
Early life is an important period of susceptibility for IBD development later in life. Tobacco smoke, infections and antibiotics were associated positively, and breastfeeding was associated negatively with IBD. Our findings offer an opportunity to develop primary prevention strategies.

ABSTRACT >

GEOGRAPHIC LOCATION & GUT MICROBIOTA OF PREGNANT WOMEN

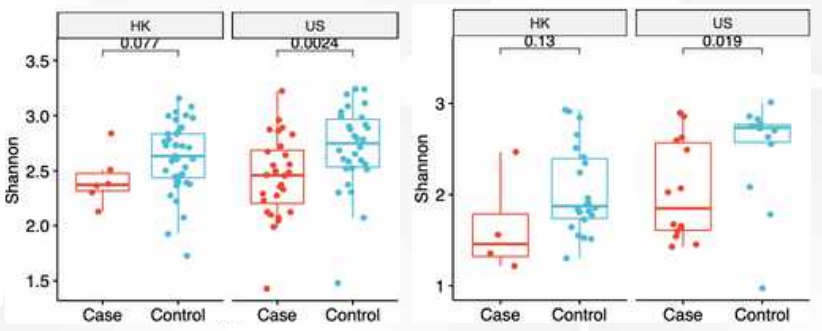
Background:
Data on the impact of geographic location on gut microbiome diversity and composition of pregnant women with and without IBD and their infants are lacking.

Methods:
420 pregnant women with or without IBD and 331 infants were enrolled in the MECONIUM Study in Hong Kong (HK) and United States (US). Fecal microbiota compositions were analyzed using 16s rRNA sequencing.

Results:
The birthweight of infants in HK was significantly lower compared to that of infants in the US. We observed significantly different microbiome diversity by sample site across non-IBD pregnant women and their babies.

Conclusion:
Our results suggest that the impact of geographic location on the gut microbiome diversity and composition irrespective of IBD status. Maternal IBD is associated with reduced microbiome diversity in infants in both the US and HK.

Mothers **Infants**



THE EXPOSOME

Studying the exposome

The concept of the 'Exposome' was first introduced in 2005 by Christopher Paul Wild, a cancer epidemiologist. Unlike the genome, the exposome is a highly variable and dynamic entity that evolves throughout one's lifetime. It is the sum of all the environmental exposures an individual experiences from conception until death.

The Exposome project consists of collecting baby teeth from IBD patients and healthy controls. Through tooth analysis, we are able to examine levels of metal exposure as far back as the second trimester of pregnancy. A previous study found that baby teeth from individuals who eventually developed IBD had higher levels of lead, copper, and chromium metal uptake. Since milk teeth develop in utero, we postulate that metal exposure during a critical window of prenatal development can be correlated with the risk of developing IBD.

As technology continues to grow, the more interactions between environmental factors and diseases can be discovered.

Our grant from the International Organization allows us to further study the role of environmental exposures on IBD. We are collecting naturally shed milk teeth from MECONIUM participants.

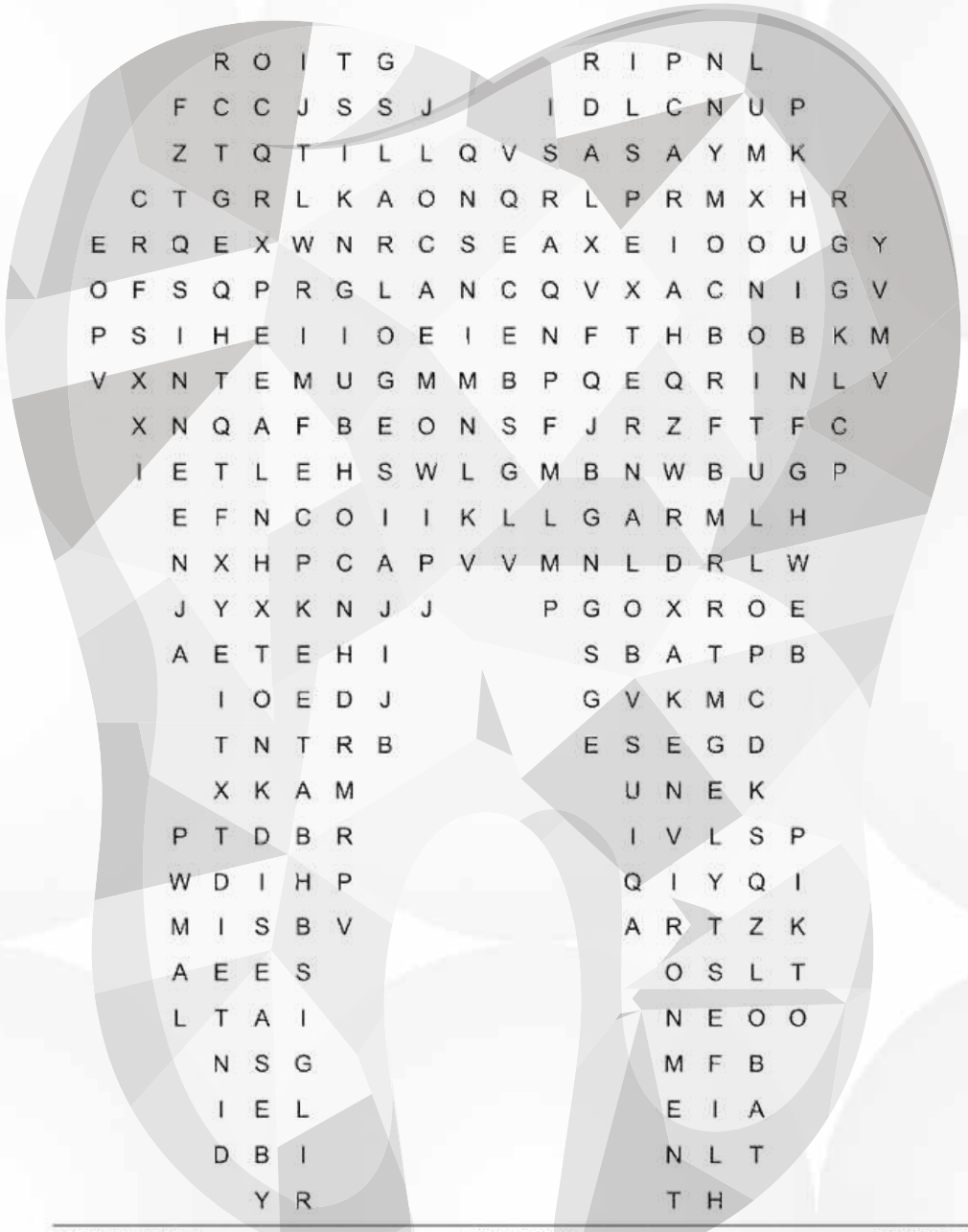
This is an optional collection for additional $25 compensation!

If your child has lost any teeth & you would like a tooth kit, please call our Research Coordinator hotline:

347-620-0210

or email us at

meconiumstudy@gmail.com



EXPOSOME
ENVIRONMENT
LIFESTYLE
CLIMATE
STRESS

INTERNAL
HAIR
GENERAL
POLLUTION
DISEASE

EXTERNAL
TOENAILS
DIET
CHEMICALS
IBD

Thank you very much!

THE FAMILY ZONE

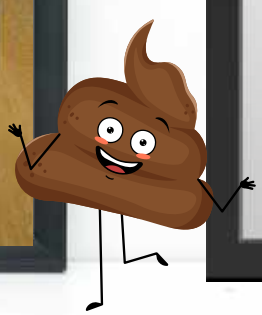
IT'S ALL IN THE FAMILY: THE MECONIUM SIBLING PROJECT

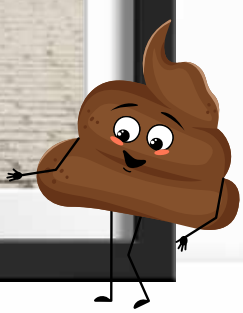
While we are no longer recruiting new pregnant mothers for the **MECONIUM Study**, we are welcoming all previously enrolled mothers to participate again with each consecutive pregnancy!

In this study, we are interested in learning more about the role that environmental and genetic factors may have on a child's microbiome development.

If you are interested, please contact our incredible Research Coordinators at 347-620-0210 (available 24/7) or via email at meconiumstudy@gmail.com!

Thanks to you all, we have over 38 consecutive pregnancies in our study!





UMass Chan MEDICAL SCHOOL

the MELODY Trial

Icahn School of Medicine at Mount Sinai

(Modulating Early Life MicrObiome through DietarY Intervention in Crohn's Disease)

What is the MELODY Trial?

The purpose of this study is to test whether a non-invasive dietary intervention during the third trimester of pregnancy can improve the gut microbiota composition in expecting mothers with IBD and their babies during a sensitive time window of infant immune system development.

Furthermore, this study assesses whether a non-invasive dietary intervention can decrease the risk of maternal disease relapse postpartum, as well as decrease functional gastrointestinal disorders and gut inflammation in their newborns.

QUICK FACTS:

- **No cost or travel required**
- **Compensation up to $900**
- **No risk involved in sample collection**
- **Samples are immediately de-identified**
- **There are 3 arms in the study**
  - **CD + IBD-AID Diet**
  - **CD + no diet**
  - **Control + no diet**

SCAN ME TO LEARN MORE!

SCAN ME

INTERESTED? TALK TO US!

themelodytrial@gmail.com

347-620-0210

Check out one of our team's favorite IBD-AID recipes this holiday season!

Curried Butternut Squash Bisque

INGREDIENTS

- 2 teaspoons canola oil
- 2 onions, chopped
- 3 cloves garlic, minced
- 1 tablespoon curry powder
- 1/2 teaspoon ground cumin
- 6 cups reduced-sodium chicken broth
- 2 pounds butternut squash, peeled, seeded & cubed (~6 cups)
- 1/2 teaspoon salt
- 1/2 cup non-fat Greek plain yogurt
- 2 tablespoons coconut milk
- Freshly ground pepper, to taste

PROCEDURE

01 Heat oil in a Dutch oven or heavy soup pot over medium heat. Add onions & garlic; cook, stirring, until slightly softened, 2-3 minutes. Stir in curry and cumin and cook for 1 min.

02 Add broth, squash; bring to a boil. Reduce heat to low, cover and simmer until the squash is tender. 30-40 minutes.

03 Pour mixture through a strainer set over a large bowl. Puree the solids in a food processor or blender until very smooth. Return puree & liquid to pot. Heat the soup gently & season with salt/pepper

04 To serve, stir yogurt and milk in a small bowl. Ladle soup into bowls and add a dollop of the yogurt mixture. Draw a toothpick through yogurt to make decorative swirls.

Because of you, we made it through!

OUR HEARTFELT GRATITUDE FOR YOUR UNWAVERING SUPPORT. WE WISH YOU HAPPY AND HEALTHY HOLIDAYS AND A JOYOUS NEW YEAR.

WARM WISHES,

The MECONIUM team






Feelin
cute










PUPPE TIME
PL SE



1ST
DAY OF
Kindergarten
2021










SUNDAE
CONES
NY
NY