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MECONIUM NEWS

Icahn School of Medicine at Mount Sinai

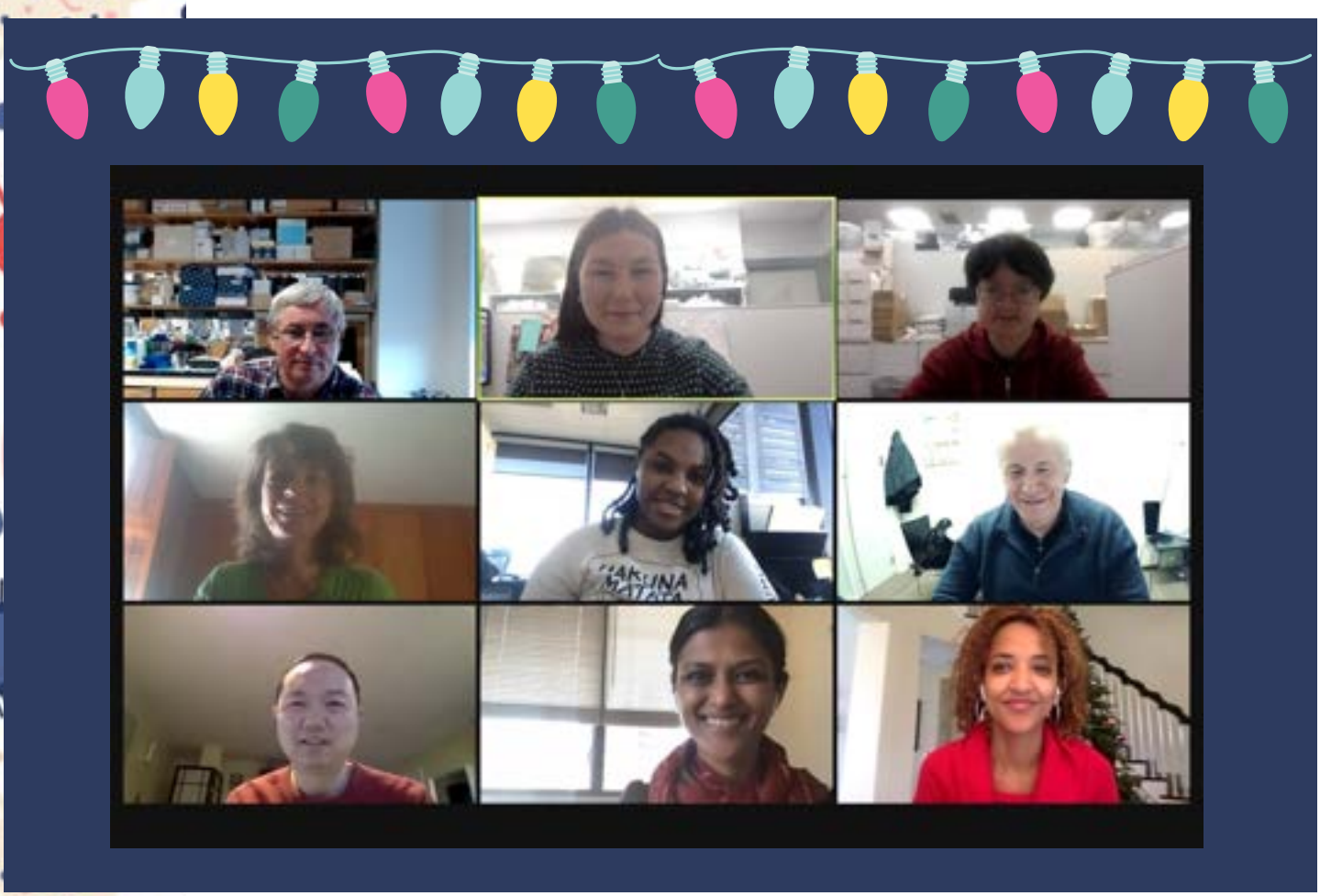
EXPLORING MECHANISMS OF DISEASE TRANSMISSION IN UTERO THROUGH THE MICROBIOME

Happy New Year!!

Whew! We finally made it to 2021! Here at the MECONIUM Study, we have been so grateful for your support and participation during such a difficult year. Through all of the challenges of 2020, the MECONIUM Study has continued our research. We look forward to sharing with you the details of what we've been able to accomplish with YOUR help!

IN THIS ISSUE:

Meet the MECONIUM Study Team



The team was feeling festive during our weekly group meeting on Zoom. Pictured first row from the left: Dr. Leonid Tarassishin, Christen Hillenbrand, Dr. Wonjun Lee; Second row from the left: Dr. Inga Peter, Sierra White, Dr. Jean-Frederic Colombel; Third row from the left: Dr. Jianzhong Hu, Dr. Manasi Agrawal, Dr. Anketse Debebe; Not pictured: Alexa Rendon

Dear MECONIUM Families,

Thank you so much for your participation these last 6 years! Through your dedication to our study (and all of those diapers!), we have been able to collect almost 6,500 samples. This year has been very difficult, and we are truly appreciative of how enthusiastic all of our MECONIUM families have been.

We want to share with you the progress of the MECONIUM Study in 2020. And, of course, we are looking forward to 2021 with some new projects and updates.

We hope you and your family continue to stay healthy and safe!
Warm wishes,
The MECONIUM Study Team

Project Updates in 2020

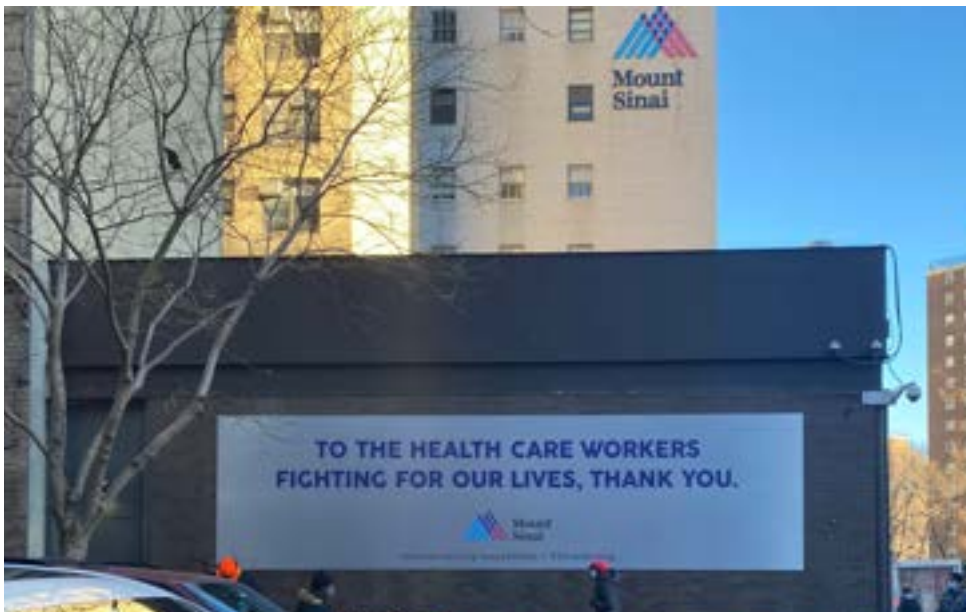
Like everyone, we experienced challenges because of the COVID-19 pandemic. In March 2020, Mount Sinai Hospital closed research labs. Fortunately, we were able to resume sample collection in June 2020 and have been working at 100% capacity since July 2020!

New Publication!

We are very excited to share our newest publication, "Longitudinal Changes in Fecal Calprotectin Levels among Pregnant Women with and without Inflammatory Bowel Disease and Their Babies", Gastroenterology, December 8, 2020. PMID 33307026

Background: Fecal calprotectin is an inflammatory biomarker which is used to measure intestinal inflammation. We aimed to monitor intestinal inflammation through fecal calprotectin in pregnant women and their babies.

Results: 1600 stool samples were analyzed for mothers and babies. Pregnancy was associated with decreased inflammation in mothers with IBD.



We are so grateful for the healthcare workers at Mount Sinai, including physicians on our team, who stepped up during the pandemic. Thank you!

Significance of this Study:

- **IBDs effect on pregnancy is not well understood; we hoped to better understand intestinal inflammation changes during pregnancy.**
- **Fecal calprotectin was correlated with different types of bacteria in both mothers and their infants.**
- **Higher fecal calprotectin levels occurred in babies born to mothers with IBD, suggesting subclinical inflammation early in life.**

We have ongoing exciting projects that can use your help! Go to pages 5, 6, and 7 to learn about these projects and how you can get involved!

Contact us!

meconiumstudy@gmail.com
347-620-0210
labs.icahn.mssm.edu/peterlab/the-meconium-study/

COVID-19 & IBD

Does COVID-19 impact IBD?

People with IBD may be at an increased risk of contracting COVID-19. If you are concerned about your risk for COVID-19, please contact your physician. Currently, physicians are tracking COVID-19 infections in people with IBD through the SECURE-IBD registry. Information reported to this registry will help doctors and researchers understand how COVID-19 impacts IBD specifically and the health outcomes for IBD patients with COVID-19.
In general, COVID-19 has been associated with gastrointestinal symptoms. Many people infected with COVID-19 experience nausea, diarrhea, and vomiting.

The Best Ways to Keep Your Family Safe

These precautions are for everyone to help keep healthy! We have been adhering to these practices at Mount Sinai since reopening in June 2020

- Wash your hands frequently with soap and water
- Avoid touching your face (eyes, mouth, nose) with unwashed hands
- Maintain social distance (6 feet) from others, especially people who are sick
- Wear a mask

If you have IBD, consider taking further precautions to avoid COVID-19 infection because of possible increased risk

For more information please go to:
https://health.mountsinai.org/blog/is-there-a-connection-between-covid-19-and-ibd/
As always, we hope you and your family are staying safe!

Everything about the Exposome

The **Exposome** encompasses all of the environmental exposures we experience in our lives, and seeks to understand how those exposures influence health. At the MECONIUM Study we are conducting two studies on the exposome to understand what role environmental factors might have in IBD development

Tooth Collection Project

We are collecting naturally shed milk teeth from MECONIUM participants, sending tooth collection kits to participants at 4 and 5 years old. Milk teeth, or baby teeth, offer a unique way to study the exposome because they start developing in utero and continue incorporating minerals and metals after your child is born. A previous study found that the baby teeth of adults with IBD had higher levels of heavy metals. With a grant from the International Organization for the study of IBD, we hope to continue understanding what role metals might play in IBD development.

Keep an eye out for the tooth kits!!

Blood Spot Project

Neonatal dried blood spots are small samples of the baby's blood collected soon after birth and saved as a routine protocol by the Department of Health. By using dried blood spots in the MECONIUM study, we will be able to look at and analyze small molecules and compounds that your baby may have been exposed to in utero. And since this blood collection has already been done, no other sample would be necessary! **If you are interested in this research, please contact us at meconiumstudy@gmail.com to receive an updated consent form for this project**.

It's All in the Family: The MECONIUM Siblings Project

We are currently recruiting pregnant moms who have previously participated in the MECONIUM Study

Participation for your current pregnancy will be the same as with your other child. With the MECONIUM Siblings Cohort, we hope to understand the role environmental and genetic factors might play in a child's microbiome development.

If you are currently pregnant and would like to participate, please contact meconiumstudy@gmail.com!

We Our ❤ MECONIUM Siblings!!






the MELODY Trial

Icahn School of Medicine at Mount Sinai

UMASS MEDICAL SCHOOL

Started in 2019, the MELODY Trial is a study for pregnant women with Crohn's disease. The MELODY Trial is designed to test whether a diet intervention, the IBD-AID Diet, can beneficially shift the microbiome of Crohn's patients and their babies, to help develop a stronger immune system for the baby, but also reduce the risk of Crohn's disease relapse and lower inflammation.

What is the potential Impact?

The microbiome can be manipulated through means such as diet, probiotics, and more. This makes it a potential area to target in order to decrease risk of IBD. By improving the microbiome of women with Crohn's Disease during pregnancy, or in babies during early life, it may be possible to foster development of a healthy microbiome in childhood, promoting the growth of a strong immune system and reducing the baby's future risk of IBD.

You are Eligible if you have Crohn's Disease and are currently less than 30 weeks pregnant.

You can choose whether to follow the IBD-AID Diet or continue with your regular diet for the study.

If you would like to learn more and enroll, Contact us!

themelodytrial@gmail.com

347-620-0210

https://www.umassmed.edu/nutrition/melody-trial-info/

Try a Taste of the IBD-AID Diet!

Classic Drop Biscuits

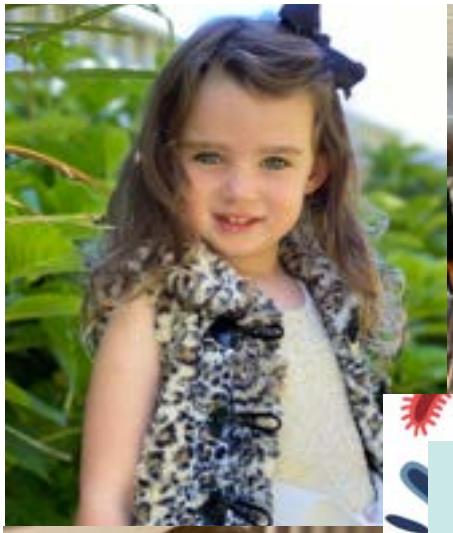
Ingredients

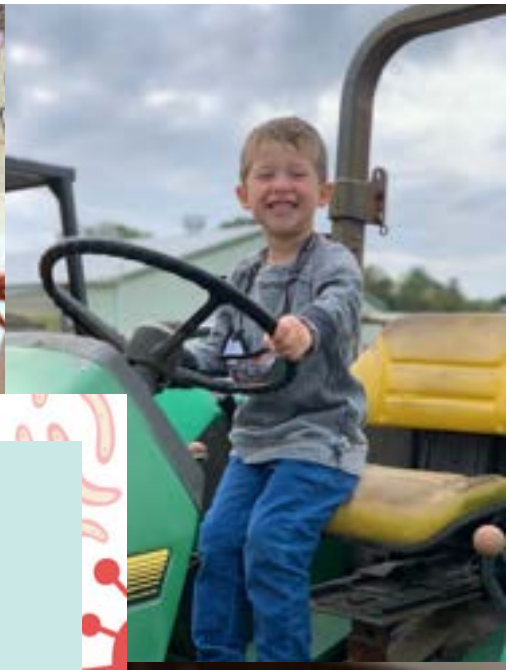
- 2 ½ cups of almond flour
- ½ teaspoon sea salt
- ½ teaspoon baking soda
- ¼ cup canola oil
- ¼ cup honey – local is best
- 2 large eggs
- 1 teaspoon freshly squeezed lemon juice

Instructions

1. Preheat oven to 350 degrees. Line a large baking sheet with parchment paper
2. In a large bowl, combine the almond flour, salt, and baking soda. In a medium bowl, whisk together the canola oil, honey, eggs, and lemon juice
3. Stir the wet ingredients into the almond flour mixture until thoroughly combined
4. Drop the batter in scant 1/4 cup scoops 2 inches apart onto the baking sheet
5. Bake for 15-20 minutes until golden brown or a toothpick inserted into the center of a biscuit comes out clean. Let the biscuits cool briefly on the baking sheet, and serve warm!

THE MELODY TRIAL IS FUNDED BY THE HELMSLEY CHARITABLE TRUST.




Thank you to our adorable diaper donors!
May 2021 be a healthy and happy year for you and your families!