



CORE news

Colorectal Research in Epidemiology
Colon Cancer Family Registry Cohort

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Greetings to our wonderful CORE Studies participants! You may notice we are sporting a new logo. In 2022, the Fred Hutchinson Cancer Research Center merged with the Seattle Cancer Care Alliance to become the integrated Fred Hutchinson Cancer Center. Despite the name change, our dedication to research excellence remains unchanged. In fact, this union was designed to create an organization that will bring scientific advances in the lab to patients in the clinic faster than ever before. We are excited for this change and seeing what we can accomplish together.

In our last letter, we mentioned that we were applying for another round of grant funding for this project, and we have wonderful news to share. We have been funded for another 5 years! So, over the next few years please be on the lookout for a request from us to complete another follow-up survey. We are really looking forward to continuing to collaborate with you on this important work.

As we start this next phase, we are trying to enter the 21st century (and be a little more environmentally friendly). So, you may notice less paper coming your way via postal mail. We've enclosed an insert so you can make sure we have your most reliable email address that we can use for future contact. If you don't have email, don't worry; we still plan to use our regular methods of postal mail and telephone as well.

In this edition of CORE news, we are talking gut health! First, we feature a CORE studies participant who was diagnosed with colorectal cancer at an early age. Now she talks to others about trusting their "gut" instincts and getting screened. You may have heard about the "microbiome" and here we attempt to describe a little about what that is, how it relates to colorectal cancer, and some of the work we have been doing on this topic. Finally, we end with another delicious and gut-friendly recipe.

It has been almost two years now since I took over leading the CORE Studies from Dr. Polly Newcomb. I feel honored to be able to do this for another 5 years. Thanks to everyone for their continued participation and commitment to this research. We've accomplished a lot over the past 25 years and none of this would have been possible without the dedication of our amazing participants.



Warm regards,

Amanda Phipps

Amanda Phipps



**Fred Hutch
Cancer Center**

CORE STUDIES PARTICIPANT FRANKIE WHITE

Frankie White knows a little bit about trusting her gut. One day she noticed an unusual amount of blood in her stool and thought it was odd. At the advice of her sister (a nurse), she made an appointment to get a colonoscopy which uncovered several polyps and a biopsy later confirmed that she had Stage 3 rectal cancer. She was only 35 years old at the time. She says, “when I received my rectal cancer diagnosis my entire world shattered. I felt fragile, vulnerable, frantic.”

Because she was so young and the cancer was so aggressive, her treatment started with radiation therapy, then surgery, then chemotherapy to ensure the cancer didn't return. She also had to have a few subsequent surgeries due to complications. Her treatment regimen was successful, and Frankie has been cancer free since October 2003!

Despite her remission, she had a difficult time transitioning back to work. According to Frankie, “I was terrified to re-enter the real world. I thought that my body would betray me. The surgeries, chemotherapy, and radiation had drained my physical strength. I just didn't think I had the stamina to thrive in the real world.” Many cancer survivors have a hard time after their diagnosis and struggle to find a “new normal.” This is often due to physical side effects or ongoing worries affecting their mental health.

Frankie was lucky to have a wonderful support system. Her family, friends, and faith, and maintaining a healthy work-life balance really helped her adjust. She joined a cancer support group where she was able to talk openly about all her emotions and find inspiration in other people's stories. In her own words, “I've learned to be present. Enjoy the moment. Do everything that I can to create a bright future, but don't panic if it doesn't look like what I imagined. Most of all I learned to be kind to myself, to give myself grace.”

Frankie's advice for other cancer survivors is similar. “I'd tell cancer survivors to be kind to yourself. Being vulnerable is a sign of strength, not weakness. Allow yourself to have a bad day, even cry for no apparent reason. Be frivolous sometimes.” She wishes she had known how important it is to take care of both your physical and mental health and not to neglect your own needs while taking care of others. Healthy decisions don't have to be drastic; they can be small and incremental.

Even though she considers herself a very private person, Frankie generously offers her story in the hopes it might make someone else's journey a little easier. Through her support group, she has been invited by the University of Washington to speak on several panels. She's also been involved in the Colon Cancer Awareness event organized by the Health Ministry at her church. She has met several gastroenterologists, nurses, social workers, community activists, and cancer survivors at these events. So, the invitations keep pouring in! Most recently, she attended a health event for Colorectal Cancer Awareness Month and was featured on the local news. And, of course, we wanted to feature her story in our newsletter as well!

We asked Frankie what motivates her to participate in all these events and also continue participating in CORE studies and contribute to research. To this, she answered, “my involvement makes me feel empowered against a disease that made me feel powerless. I want others to benefit from my struggle. If my medical history moves the researchers one step closer to a cure for colorectal cancer, then my suffering will not have been in vain.”

We are so grateful to Frankie, and to ALL our participants for their contribution to this research. Your stories inspire us every day as we work to update the scientific understanding of colorectal cancer.



THE GUT MICROBIOME AND HEALTH

You may have heard the word “microbiome” being used more and more in health-related news. But what exactly is it? The microbiome is the collection of all microorganisms, including bacteria, fungi, and viruses, that naturally live on and inside our bodies. In colorectal cancer (CRC) research, we are particularly interested in the gut microbiome, which is a vast community of trillions of microorganisms residing in our digestive tract. Scientists use advanced techniques like DNA sequencing to identify, analyze, and measure the different types of microorganisms (especially bacteria) present in our gut. The gut microbiome plays a crucial role in our overall health and well-being. It helps with digestion and the absorption of nutrients from the food we eat, produces essential vitamins, and even helps train our immune system.

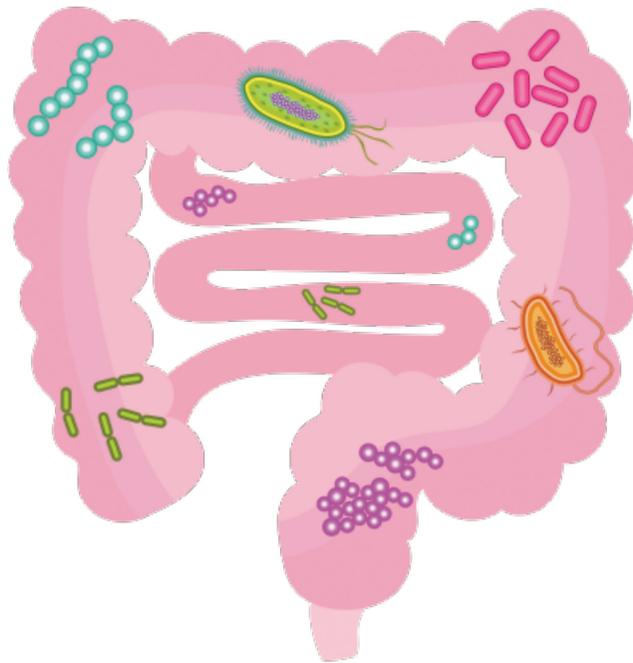
The gut microbiome has been found to have a significant relationship with CRC. Research suggests that changes in the makeup and function of the gut microbiome can influence the development and progression of CRC. The gut microbiome can influence CRC through various mechanisms. For example, certain bacteria can produce metabolites that have cancer-causing properties or promote inflammation, which can lead to the development of cancerous cells. The gut microbiome can affect the immune system’s response to tumors and influence the effectiveness of cancer treatments.

Dr. Phipps and her team are researching the gut microbiome and its connection with CRC. In particular, her team has been investigating the presence of *Fusobacterium nucleatum* (a bacteria most commonly found in the mouth) in CRC, and how that relates

to cancer survival and tumor biology. While the relationship between the gut microbiome and CRC is an active area of research, it is important to note that many factors contribute to cancer development, and the gut microbiome is just one piece of the puzzle. Nonetheless, understanding the relationship of the gut microbiome with CRC may offer new avenues for improving the prevention, diagnosis, and treatment of CRC in the future.

Building and maintaining a healthy gut microbiome means making mindful dietary choices. A diet rich in fiber, whole grains, fruits, and vegetables promotes the growth of beneficial bacteria in our gut, while minimizing intake of processed foods and sugary beverages can help maintain balance in the microbiome. Fermented foods like yogurt, sauerkraut, kimchi, and kefir can also introduce beneficial bacteria, which can be especially important after taking antibiotics. Other aspects of a healthy lifestyle are important too. A growing body of research shows that engaging in regular physical activity, reducing stress

levels, and getting adequate sleep can all contribute to a healthier gut microbiome. By making health-conscious choices about our diet and lifestyle, we can support a diverse and thriving gut microbiome, ultimately benefiting our digestive system and overall health.





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KEFIR OVERNIGHT OATS (MAKES 2 GENEROUS SERVINGS)

Adding fermented foods to our diet provides gut-healthy probiotics. Kefir is a fermented milk that tastes like thin yogurt, but contains even more strains of probiotics than yogurt. It can usually be found in the dairy or yogurt section of the market. Adding kefir to old-fashioned rolled oats includes the benefit of the oat's fiber and whole grains. Oats also promote the growth of the beneficial probiotics introduced by the kefir, as well as help to balance blood sugar and lower blood pressure.

This recipe is super easy, can be made with only 2 ingredients, and is a delicious way to introduce beneficial bacteria to your morning routine. Adding your choice of fruit, nuts, honey, granola, or seeds just ups the nutritional value and lets you create a breakfast that is fast, delicious,

Ingredients:

2 cups plain or flavored kefir 2 tsps. honey or pure maple syrup for
1 cup old fashioned rolled oats sweetness (optional)
2 Tbs. chia seeds (optional)

Instructions:

The night before, mix desired ingredients together, cover, and put in refrigerator overnight. In the morning add in your choice of fruit (this version includes blueberries and peaches) and other toppings, like extra sweetener or

crunchy granola. This will last in the refrigerator for up to 5 days but may start to get a little “bubbly” after a few days as the kefir continues to ferment.

