# The Hormel Institute

# UNIVERSITY OF MINNESOTA

#### RESEARCH

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# The Hormel Institute Scientist Awarded \$100K Grant to Investigate Discrimination's Impact on the Gut Microbiome and Heart Failure Risk in Breast Cancer Patients

Leena Hilakivi-Clarke, PhD, Professor at The Hormel Institute, University of Minnesota, has received the Masonic Cancer Center's (MCC) 2023 CRTI Exceptional Translational Research Award. The award will provide \$100,000 over two years to support a pilot study led by Drs. Hilakivi-Clarke at The HI and Anne Blaes at MCC that will investigate the effects of racial discrimination on the gut microbiome and heart failure risk among Black, Native American, and White breast cancer patients who have been treated with aromatase inhibitors.

"Although elimination of structural racism is the ultimate societal goal, it is critical to discover ways to reduce its impact on health. If we find that racial discrimination causes gut dysbiosis and increases the risk of heart failure in breast cancer patients treated with aromatase inhibitors, we could attempt to reverse gut dysbiosis by suppressing biological changes induced by stress linked to discrimination, such as activation of beta-adrenergic signaling of the autonomic nervous system." - Leena Hilakivi-Clarke, PhD



#### Read more

## The Hormel Institute Scientist Co-Authors Paper Modeling Electromechanical Material Properties to Benefit Smart Devices, Biomaterials, and More

David Guinovart, PhD, Assistant Professor at The Hormel Institute, University of Minnesota, has co-authored a paper published in the *International Journal of Engineering Science*. The paper "Influence of nonlocal elasticity tensor and flexoelectricity in a rod: An asymptotic homogenization approach" provides a new methodology for studying flexoelectric composite materials and unlocks insights into their vast possible applications, such as for the development of intelligent sensors, biomedical devices, more eco-friendly energy sources, and more.

"Flexoelectricity is more than a scientific curiosity: it's a gateway to a future where energy is seamlessly integrated into our daily lives and even our biology. From powering gadgets to healing bones, it represents a harmony between technology and nature and the endless possibilities that arise when they intersect. As we continue exploring flexoelectricity, we're not just uncovering new ways to generate power; we're redefining the relationship between energy, technology, and the human body." - David Guinovart, PhD

Read more



#### SUPPORT

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#### **Bowling for the Battle**

When: Saturday, March 16, 2:00 pm Where: Echo Lanes, Austin, MN

Bowling teams are full, but you can still attend this fun event! Check out the live auction, silent auction, and more! All proceeds benefit prostate cancer research at The Hormel Institute. \$410,000 has been raised to date! For more information, visit the <u>Bowling for the Battle</u> <u>Facebook page</u>.



#### Thank You Eagles Cancer Telethon



The telethon's Executive Director Brett Carlson and former Executive Director Teresa Chapman stopped by The Hormel Institute to present a \$340,000 cancer research donation. 100% of the donation is used for "Eagles Postdoctoral Fellowship" cancer research grants. Thank you to all who lead and support the Eagles Cancer Telethon!

**Thank You Donors** 



#### The Zappa Agency Fishing Tournament raised \$4,000 for cancer research at The Hormel Institute.

Pictured: Mike and Steve Zappa with The Hormel Institute's Dr. Luke Hoeppner and Dr. Leena Hilakivi-Clarke



Even though the weather caused the cancellation of the fishing contest, Fishing for a Cure raised more than \$14,000 for cancer research at The Hormel Institute.

Pictured: Event Organizers Glenn Newman, Zach Newman, Hayley Erdahl, and her baby Parker



#### The Austin Girls Varsity Hockey Team raised more than \$400 for cancer research at The Hormel Institute.

Pictured: Members of the Austin Girls Varsity Hockey Team and The Hormel Institute's Dr. Luke Hoeppner



Plunging for Pink raised nearly \$87,000 for cancer research at The Hormel Institute. The check was presented at Paint the Rink Pink.

Pictured: Austin Bruins Owner Brian Raduenz, Kirsten Fuerstenberg, Crystal Steinbach, Jeremy Olson, Emica Tran, PTTP Ambassador Jessie Meyer, The Hormel Institute's Dr. Ted Hinchcliffe, Gail Dennison, and Daneka Wiechmann



Austin Utilities raised more than \$2,500 for cancer research at The Hormel Institute.

Pictured: Austin Utilities General Manager Mark Nibaur, The Hormel Institute's Dr. George Aslanidi, and others from Austin Utilities

#### 2024 Paint the Town Pink

As the 2024 Paint the Town Pink (PTTP) comes to an end, we want to thank everyone who helped organize a PTTP event and/or participated in an event. Your support makes cancer research at The Hormel Institute possible!



**Business After Hours** 



Dutchtown Jumpers Swedish Meatball Cook-Off



**Plunging for Pink** 



**Pickle for Pink** 



Austin Bruins Black & Gold Gala



Paint the Rink Pink



Paint the Airwaves Pink KAUS Radiothon



Shooters for Hooters Trap Shooting





Mower County Public Works Snowplow Parade



Fishing for a Cure





Toss for a Cure Bean Bag Tournament



**VFW Pool Tournament** 



Greater Mower County Paint the Town Pink Not Your Granny's Bingo

Smashing Cancer Demolition Derby

#### **Austin Bruins Owner Visits The Hormel Institute**

Austin Bruins Owner Brian Raduenz visited The Hormel Institute in February to learn more about the cutting-edge research and state-of-the-art technology. The Austin Bruins support cancer research at The Hormel Institute through Paint the Rink Pink and the new Black and Gold Gala. Thank you Austin Bruins for your continued support!



Brian Raduenz learns about The Hormel Institute's Cryo-EM technology from Cryo-EM Project Specialist Jim Thompson, PhD.



Brian Raduenz visits the laboratory of George Aslanidi, PhD, and learns about his research.

DONATE NOW

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### **COMMUNITY OUTREACH & EDUCATION**

### The Hormel Institute's Community Outreach & Education Coordinator Serves on GRAUC Panel

The Hormel Institute's Community Outreach & Education Coordinator, Katie Young, served as a panelist at the <u>Greater Rochester Advocates for</u> <u>Universities & Colleges</u> (GRAUC) February Partnership Meeting. The meeting was focused on discussing the value of post-secondary education and workforce trends. Young talked about the Summer Undergraduate Research Experience (SURE) internship program and other opportunities for undergraduate students at The Hormel Institute.



## Leaders from Gustavus Adolphus College Visit The Hormel Institute

Leaders from Gustavus Adolphus College met with leaders from The Hormel Institute to discuss future

#### partnerships centered around STEM education.

Pictured: The Hormel Institute's Chief of Staff Elizabeth Fedie, Gustavus Vice President Kathi Tunheim, Gustavus Gift Planner Stephen Bennett, The Hormel Institute's Executive Director Dr. Robert Clarke, Gustavus President Becky Bergman, The Hormel Institute's Dr. Rebecca Morris, and The Hormel Institute's Director of Development and External Relations Gail Dennison



### **Science Educators Visit The Hormel Institute**



Science educators from Austin Public Schools explored The Hormel Institute during a visit aimed at gaining insights and touring the facilities. The visit provided a deep dive into the Institute's pioneering research and innovation. Teachers had the opportunity to enhance their understanding of the Cryo-EM microscope and explore different research labs. The visit also included engaging discussions and brainstorming sessions to identify avenues for strengthening the partnership between The Hormel Institute and Austin Public Schools to create more opportunities for both students and teachers to learn directly from scientists and researchers.

#### Attention Former SURE Interns: We Want to Connect with You!

**Former SURE Interns - we want to hear from you!** Our goal is to maintain and strengthen relationships between Summer Undergraduate Research Experience (SURE) Interns and The Hormel Institute faculty/staff, even after your internship.

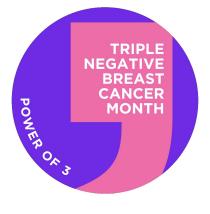
Our interns are a valued part of our family! **To stay** connected, <u>click here</u>.



### Blog: Research Gives Triple Negative Breast Cancer Patients More Options

In the world of breast cancer, the term "triple negative" carries a weight that extends beyond its name. Triple Negative Breast Cancer (TNBC) is an aggressive form of breast cancer that accounts for 10-20% of all breast cancers.

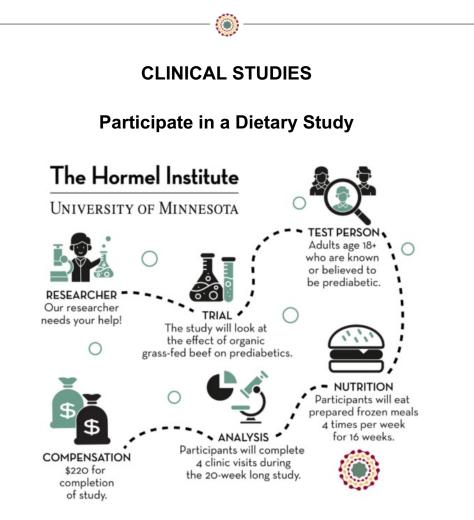
TNBC is considered aggressive because it is more likely to have spread to other parts of the body by the time it's diagnosed, more likely to resist treatment, and more likely to return after treatment compared with other kinds of breast cancer. Research strides made in recent years have paved the way for more effective, personalized treatments and higher survival rates for triple-negative breast cancer patients.



In honor of March being <u>TNBC Awareness Month</u>, and our 2024 <u>Paint the Town Pink Ambassador Jessie</u> <u>Meyer</u> being a TNBC survivor, in this month's <u>blog</u> The Hormel Institute's Clinical Research and Outreach Nurse looks into what TNBC is and how far we've come in treating it.



Emily Heath, Clinical Research & Outreach Nurse



**Help with important research!** At The Hormel Institute, University of Minnesota, we are looking for men and women 18 years or older to take part in a 20-week long dietary research study looking at the effects of organic grass-fed beef on gut health. Participants will get four free meals per week for 16 weeks and compensation up to \$220. For more information, visit <u>redcap.link/HormelBeefStudy</u>.

### **Smoking and Alcohol Study**

The Hormel Institute is looking for men and women 21 years of age or older who are in good health, daily cigarette smokers who are light/non-alcohol drinkers or moderate drinkers for a clinical study. The purpose of this study is to examine the effects of cigarette smoking and alcohol consumption on the formation of DNA damage in the oral cavity. The goal is to try to identify DNA damage that may contribute to cancers of the head and neck.

You will be asked to attend two clinic visits, each lasting about 60 minutes. The two visits will take place about 2 weeks apart. Prior to the clinic visits you will attend a virtual or inperson consent meeting to discuss the study in detail. You will be paid \$75 for each completed visit and a \$25 bonus for completing your daily surveys. For questions or to see if you qualify, call (507) 355-5209 or email Research Coordinator Megan Moe at

Read more

moe00193@umn.edu.

#### 10,0000 Families Study

The Hormel Institute is partnering with the <u>10,000</u> <u>Families Study</u> (10KFS) of the University of Minnesota.10KFS is a study of family health across Minnesota, looking at how environment, genetics, and daily life affect health and illness over time. We invite families from Mower County and broader Southeast Minnesota to join the study. Let's make sure our region is represented in this landmark project! Participants can come to The Hormel Institute for the in-person part of the study.



To find out if your family is eligible to join 10KFS, <u>click</u> <u>here</u>. Questions? Email <u>tenkfs@umn.edu</u>.

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