

THE CEECR CONSORTIUM NEWSLETTER

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Funded by the National Cancer Institute (NCI), and the National Institute of Environmental Health Sciences (NIEHS), NIH, DHHS



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CEECCR: The New Cohorts for Environmental

Exposures and Cancer Risk is a collaborative effort co-funded by the National Cancer Institute (NCI) and the National Institute of Environmental Health Sciences (NIEHS). CEECCR aims to support innovative scientific research in new prospective cohorts that address knowledge gaps in cancer etiology and carcinogenesis processes with a focus on environmental exposures.



Coordinating Center Updates



Employing modern biotechnology to your research objectives:

Many of us struggle to stay current on the latest analytical technologies for human health research. As members of CEECR, your teams can avail themselves to the expertise of the Coordinating Center's leadership in areas such as Genomics, Metabolomics, Transcriptomics, Bioinformatics, and Model Systems. This can occur, in a number of ways, through our relationship with the UW Biotechnology Center (UWBC).

First, you can participate in a Faculty Innovator Think Tank (FIT²) session on the first Thursday of each month at 10:30 AM CST. These sessions put your work front of the Technology Core Leaders with expertise in all aspects of OMICS based research. You get 20 minutes to present your research/idea and the team of experts will then share the latest and greatest OMICS approaches to address important relevant issues.

Second, as members of CEECR, you can access any of the UWBC technological cores. This means you can perform lipidomics analysis of sera, transcriptomics, and microbiomics, etc.

If you have any questions about how state of the art biotechnology can be applied to your project, reach out to the Center Director, Dr. Chris Bradfield (Bradfield@oncology.wisc.edu) for a consult or more information.

Cohort Check-ins

The Coordinating Center would like to sincerely thank the PIs and everyone that participated in the Check-ins. Through these individual site meetings, we were able to better understand the top priorities for each site along with areas of success and challenges. The meetings also provided an opportunity for us to discuss how the CC could assist them and facilitate collaborative work across the cohorts.

CEECR in the Community

SEHS:

- SEHS has been involved in 82 community events, including 5 so far in 2024. These include 17 health council meetings, 14 health/wellness fairs, 24 cancer awareness events, 5 health disparity-specific events, 4 African American health centered events, and 4 Hispanic/Latinx health centered events. Presentations included information on the exposome, environmental influences on cancer, and a summary of the study.

MI-CARES:

- In a webinar series, MI-CARES had a talk on water contamination and cancer risk with Dr. Rena Jones, speaker from the NCI (linked [here](#)). Leigh Pearce also hosted a podcast on ovarian, breast, and cervical cancers discussing her goal to “put oncologists out of business”! (linked [here](#)).
- MI-CARES is establishing networks with groups involved in environmental work. They have also participated in local health fairs to discuss cancer prevention.
- MI-CARES also gave a talk on Environmental Justice to community members.

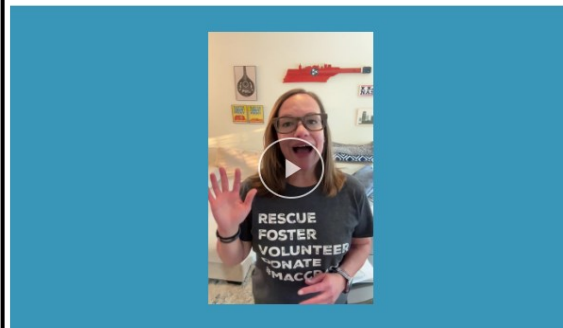
STRIVE:

- In responding to community partners, STRIVE is creating [informative videos](#) and [many FAQ pages](#) for participants on topics such as what their samples will be used for and PFAS. STRIVE continues to attend Community Health Fairs and has reached out to collaborators to expand their network for outreach.

Want to highlight your Cohort's work in the community? Please email Hannah at hkjohanson2@wisc.edu to get your group's efforts recognized for all they do!

SEHS has provided informational videos for participants linked [here](#).

Participant experience with the SEHS wristband:



An SEHS video on how participants use wristbands.

MI-CARES has built a resource page linked [here](#).

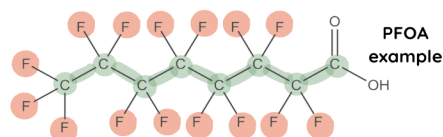
Fact or Fiction: Test your knowledge!

Exams	UV Rays	Age
<p>It is important to examine your skin at least once a month to check for any abnormalities.</p> <p>Fact!</p> <p>Early detection is key in skin cancer. Follow the ABCD rule to evaluate moles:</p> <ul style="list-style-type: none">• <i>Asymmetry</i>• <i>Border</i>• <i>Color</i>• <i>Difference</i> <p>and contact your health provider about any abnormalities.</p>	<p>Unprotected skin can be damaged by the sun's ultraviolet (UV) rays in as little as 15 minutes.</p> <p>Fact!</p> <p>Sun exposure without protection can increase your risk of skin cancer.</p> <p>Additionally, indoor tanning devices can emit UV radiation that is 10-15 times higher than direct exposure from the sun.</p>	<p>Skin cancer only happens in older people.</p> <p>Fiction!</p> <p>Melanoma, one type of skin cancer, is the most common cancer in people aged 25-29.</p> <p>Use a sunscreen that is SPF 30 or higher to protect your skin from sun damage - even when it's cloudy!</p>

An infographic on skin cancer facts and fiction from the MI-CARES resource page.

STRIVE has added information and communicated results on PFAS to their website linked [here](#).

What are PFAS?



Screenshot of STRIVE's article on PFAS and Q&A for participants.

CEECR in the Community

10KFS:

- 10KFS was featured in the news! The story titled “U of M study aims to track the health of 10,000 Minnesota families”, posted by the KTTC News website, features interviews with Jen Poynter and Clemen Wilcox which can be found [here](#). The broadcast discussed the study’s goals and how to participate.
- They have been involved with 36 community meetings, 8 community listening sessions, 11 community advisory boards, 63 education and recruitment events, 11 community presentations, and 8 community resources.
- 10KFS also ensures to have sign language interpretation at all of their meetings.



Clemen Wilcox in her interview discussing diverse populations the study hopes to reach. She states these populations are traditionally understudied and at higher risks of exposures that increase cancer (10KFS).



Jen Poynter (right) being interviewed during the broadcast discussed the collaborative team effort of the study which includes both skilled researchers and volunteers (10KFS).



Other Announcements

CEECR Cohorts to Present at the 36th Annual conference of the International Society for Environmental Epidemiology (ISEE) in Santiago, Chile! August 25—28, 2024

This year’s conference theme is “**Addressing challenges in environmental health, justice, and development.**” In a 90-minute session, the CEECR cohorts will present a symposium titled “**New Cohorts for Environmental Exposure and Cancer Risk among Environmental Justice and High-Risk Communities in the United States.**” This symposium will provide insights into the methodological challenges and early findings from each cohort included in the CEECR program. It will highlight how new sampling frames can support the next generation of cancer and environmental health research with a focus on exposomic research and early biomarkers of cancer disease risk. The symposium will combine 5 presentations shared across the cohorts and Q & A sessions with conference attendees.

New Publications / Presentations / Resources

Publications:

- Congrats to Bhramar from MI-CARES on [their publication](#) listing CEECR grant funding!
Clark-Boucher D, Zhou X, Du J, Liu Y, Needham BL, Smith JA, Mukherjee B. Methods for Mediation Analysis with High-Dimensional DNA Methylation Data: Possible Choices and Comparison. PLoS Genet. 2023 Nov 7;19(11):e1011022.
- Congrats to Quiyin Cai and Wei Zheng from SEHS on [their recent publication](#) listing CEECR grant funding!
Rahman ML, Shu XO, Jones DP, Hu W, Ji BT, Blechter B, Wong JYY, Cai Q, Yang G, Gao YT, Zheng W, Rothman N, Walker D, Lan Q. A nested case-control study of untargeted plasma metabolomics and lung cancer among never-smoking women within the prospective Shanghai Women's Health Study. Int J Cancer. 2024 Apr 23.

Presentations:

- 10KFS hosted [a webinar](#) on radon testing and mitigation which included ASL interpretation.
- SEHS presented a poster at 2 symposiums: The 23rd Annual Meharry-Vanderbilt-Tennessee State Cancer Partnership (MVTCP) Symposium and the 2024 USA Exposome Symposium
Poster Title: *The Southern Environmental Health Study: A systematic investigation of environmental exposures and cancer*

Resources:

- 10KFS sent out their 9th Newsletter featuring radon testing, a word search, and a link to their radon webinar.
- SEHS has created a new brochure, recruitment video, and wristband videos for their social media. They are also preparing a newsletter, which will be shared once approved.
- SEHS also put together an editable recruitment video from Canva that they shared to MI-CARES. They have also shared posters and brochures, as well as a YouTube video which can be found [here](#).
- STRIVE has created a website where they communicate important information and results. It can be found [here](#).
- MI-CARES has included [a resource page on their website](#). They utilize this page to showcase their webinars on cancer and environmental health.

10KFS is providing information on Radon among other topics in their webinars linked [here](#).



The screenshot shows a promotional graphic for a webinar. At the top, it says "Learn about RADON" in large letters, with "RADON" in red. Below that, it asks "Are you at risk?". On the right, it specifies the date and time: "Wednesday, Feb 14, 2024, Noon-1:00 PM". A central box identifies the "Guest speaker" as Marc Katz, MPH, an expert on radon from the Indoor Air Unit of the Minnesota Department of Health. A small photo of Marc Katz is included. Below the speaker information, the "Webinar link" is provided as z.umn.edu/10KFS-MDH-Radon-1. The graphic also features several logos, including "10K FAMILIES 2014", "ALL INTERPRETATION PROVIDED", and the "MINNESOTA DEPARTMENT OF HEALTH" logo. On the left side, there is an image of a family (a man, a woman, and a child) playing together, with small radon symbols overlaid on the scene.

Screenshot from the 10KFS website where they promote webinars on environmental health topics or understanding participants' own report-backs.

Lay Abstracts:

- The CC has created lay abstracts for publications citing CEECR funding, and they will be posted to the CEECR website [here](#) upon author approval.
- MI-CARES and DREAM members Justin Colacino, Tracey Woodruff and Peggy Reynolds collaborated on a paper in 2023 that used NHANES data to explore PFAS, phenols, and parabens and links to hormone-mediated cancers. Their collaborator at USC, Max Aung hosted a webinar about their publication that you can watch [here](#). Or, you can check out Max's blog post on how 'Exposure to PFAS chemicals doubles the odds of a prior cancer diagnosis in women' [here](#). A lay abstract for their paper has been posted to our CEECR website. [Here](#) is also a Twitter post on the science snippet that [Agents of Change](#) helped produce for this paper.

CEECR Consortium Collaboration and Harmonization

Harmonization Working Group

Core data elements for the consortium

- In our last meeting, we reviewed feedback from the cohorts on our collaborative demographics Table.
- We also considered other demographic questions for an “extended” Table 1 as well as their priority levels.
- For our next steps, the CC will incorporate suggestions into a collaborative questionnaire and circulate it. We will also explore drafting a paper proposal that includes combined demographic data.
- We are considering if this data should be from a specified time range of recruitment or specified number of participants.

Recruitment and Retention Working Group

Sharing best practices, successes and challenges

- Katie Boronow from the Silent Spring Institute met with us to discuss report backs and the DERBI platform.
 - ⇒ Personal results increase engagement with reports
 - ⇒ Report backs increase environmental health literacy
 - ⇒ Participants become more aware of their environmental health and have changed behaviors to reduce exposures.
 - ⇒ DERBI stands for Digital Exposure Report-Back Interface. It is an online tool researchers can use to generate personalized reports for participants.

Geospatial Working Group

Creating a geospatial protocol for the consortium

At the Annual Meeting in 2023, the Cohorts identified a need for a Geospatial Working Group.

- All the geospatial CEECR members met in January to explore the protocol plans across the consortium for geocoding and geographic linkage work.
- 2 different geocoding software approaches were identified.
- The CC presented its plan to compare the two different protocols currently used for geocoding at the next working group: (1) SAS (proc geocode) and (2) ESRI (ArcGIS)

The CC has put together a comparative analysis with a set of WI addresses to illustrate geocoding ‘scores’, correlation between the two geocoders, and concordance with assigned values when linked to an exposure or health outcome.

Our next action is to think about:

- ➔ What is the first step for our first geospatial project?

Wristbands and Biospecimens

Collaboration on plans for analysis and preparing for common assay work

- During cohort check-ins, each site contributed their information to the shared biospecimens and wristband table in SharePoint.
- The CC has compiled a literature review on previous studies that have utilized wristbands to characterize the exposome.
 - ⇒ **A summary and an infographic of these findings will be shared on our website.**

Steering Committee

Guiding the direction of the consortium

- The CC has received approval to allocate funds to support a collaborative CEECR project. We plan to use shared data and coordinated analysis to publish a manuscript.
- Potential ideas for this project include a pooled wristband analysis or biomarker exposure and cancer outcome analysis.
- At the next meeting, we will work to finalize our plan and get a consensus on which collaborative project each site wants to work on.

Meet the Consortium



Natalia Arroyo, MPH (Coordinating Center)

Prior to my involvement in CEECR, I received my MPH from Loyola University Chicago and have worked as a researcher in several federally funded epidemiology and health services research laboratories. My past experience includes coordination support for the Breast Cancer and Environment Research Program, investigating patterns in thyroid cancer care (i.e., healthcare utilization, nodule detection, diagnosis, referral, treatment, and patient outcomes) using a microsimulation model, and development of a patient-reported outcome measure for unilateral vocal fold paralysis. I am excited to be part of CEECR in a data scientist role and actively engage in the data harmonization and geospatial working groups.



Kayla Getz, PhD (MI-CARES)

Kayla Getz started the PhD program in epidemiology at the University of Michigan School of Public Health in September 2017. She earned her MPH with a concentration in epidemiology and certificate in public health genetics at the University of Michigan School of Public Health in 2015. Prior to attending the University of Michigan, she completed a B.S. in biobehavioral health with a minor in health policy and administration at the Pennsylvania State University in 2012. Her current research focuses on cancer related outcomes and survival among patients with head and neck squamous cell carcinoma (HNSCC). Through her dissertation, Kayla plans to better understand the association between statin use and HNSCC outcomes to further elucidate mechanisms that may explain the observed association.

Coordinating Center Resources:

The CEECR public website is www.ceecr.org
We continue to update our website and newsletter as the CEECR program progresses. To be featured, please send any consortium updates, suggestions, pictures, or other cohort activities to Hannah Johnson at hkjohnson2@wisc.edu.

Link to the CEECR SharePoint site is [here](#).
For any assistance with the site, including but not limited to account or password reset, registration, navigating the portal, and addition of resources and links, please contact Hannah or Julie.

Save The Dates:



Harmonization Working Group

May 16, 2024 at Noon EST

Recruitment and Retention Working Group

June 11, 2024 at 2pm EST

Steering Committee

First Monday of each month at 2pm EST

May 6, 2024 at 2pm EST

Annual Meeting

November 7-8, 2024 at NIEHS in Durham, North Carolina. More details to come!

NCI and NIEHS Team



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NCI Lead, Program Director
Environmental Epidemiology Branch
Epidemiology and Genomics Research Program, NCI



Curt DellaValle, PhD, MPH

Program Director
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Tram Kim Lam, PhD, MPH

Branch Chief
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Abee Boyles, PhD

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Melanie Sandquist, MPH

Cancer Research Training Award Fellow
Environmental Epidemiology Branch
Epidemiology and Genomics Research Program, NCI

COORDINATING CENTER CORNER

The CEECR Coordinating Center is here for you!

Our multidisciplinary team includes experts in breast cancer epidemiology (Trentham-Dietz), basic science including genetics (Bradfield), environmental health and applied public health (Malecki), toxicology (Bradfield), program evaluation, biostatistics (Gangnon, Hampton, Arroyo), and outreach/community engagement (Malecki, Warren Andersen), as well as mentoring and training (all) and research administration and logistical support (McGregor, Johnson, Wiesner).



Amy Trentham-Dietz, PhD, MS
Cancer Epidemiologist
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- Oversight for the CC and Steering Committee Representative
- Identifying common data elements to guide harmonization
- NCI Point of Contact



Kristen Malecki, PhD, MPH
Environmental Epidemiologist
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- Assists in identifying common data elements of early biomarkers
- Facilitates the Recruitment and Retention working group
- Supports resource sharing and manuscript publication



Julie McGregor
Research Administration
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- Overall coordination of timelines, deliverables, dissemination, and the annual meeting
- NCI Point of Contact
- IRB, DUA, MTA



Hannah Johnson, MPH
Public Health Policy & Management
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- Assists with identifying common data elements
- Maintains communications and contacts
- Coordinates meetings, manuscripts, and stakeholder engagement



Shaneda Warren Andersen, PhD, MS
Cancer Epidemiologist
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- Assists with identifying common data elements of cancer risk factors, resource sharing and manuscripts
- Community outreach and stakeholder engagement
- Health Equity Experience



Ronald Gangnon, PhD
Biostatistician
ronald@biostat.wisc.edu

- FAIR data sharing practices and external PIs access to CEECR data
- Guidance on statistical methodologies and analyses, and support of manuscripts and resource sharing



Chris Bradfield, PhD
Environmental Toxicologist
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- Support for biospecimen best practices and manuscript publication



John Hampton, MS
Biostatistician
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- Supports data management and sharing between PIs
- Designs data entry, tracking, and standardization
- Submission of CEECR data to NIH



Natalia Arroyo, MPH
Data Scientist
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- Observational Medical Outcomes Partnership (OMOP) data sharing and harmonization
- Co-lead cross-network data analysis projects
- Assists with Geospatial Working Group and manuscripts



Katie Wiesner
Project Assistant
kkwiesner@wisc.edu

- Supports meeting logistics, newsletters, literature reviews, data collection, and analysis.
- Assists with dissemination of research activities and findings.