News at a Glance

September 2022

Save the Date: October 26 Research Symposium

The CEG Annual Research Symposium will be held on Wednesday October 26, beginning with a 10:00 AM presentation by Robyn L. Tanguay, PhD, University



Distinguished Professor in the Department of Environmental and Molecular Toxicology, Oregon State University; Director of the Pacific Northwest Center for Translational Environmental Health Research (NIEHS P30 ES030287). Dr. Tanguay will speak on **Using Multidimensional Zebrafish Data**

to Advance Environmental Health Sciences (Kettering Kehoe Auditorium, 10:00 AM). The seminar will be followed by updates on several recent CEG-funded pilot studies with topics including - but not limited to - metals exposure, mitochondrial function and mental health; programming the skin microbiome against environmental pollution, and academic-community partnerships in the study of regional air pollution. More details to come!

Congratulations to Dr. Ying Xia on her recent NIEHS awards, Gene-environment interactions in epithelial morphogenesis (R01 HD098106) and Signaling mechansims of gene-environment Interactions in Female Reproductive (R21 ES033342), exceeding more than a half-million dollars in total funding this year alone.

Congratulations to Dr. Ranjan Deka and colleagues on refunding of the Molecular Epidemiology in Children's **Environmental Health Training Program (NIEHS T32** ES010957). Now in its 21st year, MECEH aims to train and cross-train epidemiologists, physician scientists, biostatisticians, and molecular biologists in the use of biological, molecular and biostatistical measures to study and better understand how environmental exposures affect children's development and health.

CEG Director Susan Pinney, PhD, FACE, was invited to participate in a National Institute of Environmental Health Sciences workshop on including environmental exposure data in the NIH All of Us Research Program. The program aims to build a research resource of data including at least 1 million participants and reflecting the diversity of the United States. The 2-day program on July 28 and 29 focused on Research Opportunities in Toxic Environmental Exposures and Biospecimens/Environmental Samples and Assays and included various breakout groups on specific topics. Earlier in July, Dr. Pinney also participated in a workshop sponsored by the Columbia P30 center, Climate, Environment, Justice and Health: Integrating the State of the Science into Large Population-Based Studies.

The CEG is pleased to announce the recent delivery of two freezers housing biospecimens from the Growing up

CEG Center for Environmental Genetics Funded by NIEHS award P30 ES006096 http://med.uc.edu/eh/centers/ceg

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Female study. The **Growing Up Female study** is a cohort study within the Breast Cancer & the Environment Research Program (BCERP) that has been examining the role that genetic-level markers and social, environmental and lifestyle factors play in the timing of female puberty, propensity toward obesity, and other health outcomes. Requests to use biospecimens can be submitted in c\o Susan Pinney, PhD, FACE.

Congratulations to Dr. Pinney on her newest R21 award: Uranium exposure and infertility in reproductive partners in the Fernald Community Cohort (NIEHS R21ES032112).

More News: Dr. Kelly Brunst is now leading the CEG Integrative Health Sciences Facilities Core. Co-leader: Jack Rubinstein MD.

Recent Publications -

Pilarczyk M, Fazel-Najafabadi M, Kouril M, Shamsaei B, Vasiliauskas J, Niu W, Mahi N, Zhang L, Clark NA, Ren Y, White S, Karim R, Xu H, Biesiada J, Bennett MF, Davidson SE, Reichard JF, Roberts K, Stathias V, Koleti A, Vidovic D, Clarke DJB, Schürer SC, Ma'ayan A, Meller J, **Medvedovic M.** Connecting omics signatures and revealing biological mechanisms with iLINCS. Nat Commun. 2022 Aug 9;13(1):4678. PMID: 35945222. PMCID: PMC9362980.



Byun J, Han Y, Li Y, Xia J, Long E, Choi J, Xiao X, Zhu M, Zhou W, Sun R, Bossé Y, Song Z, Schwartz A, Lusk C, Rafnar T, Stefansson K, Zhang T, Zhao W, Pettit RW, Liu Y, Li X, Zhou H, Walsh KM, Gorlov I, Gorlova O, Zhu D, Rosenberg

SM, Pinney S, ... Amos Cl. Cross-ancestry genome-wide meta-analysis of 61,047 cases and 947,237 controls identifies new susceptibility loci contributing to lung cancer. Nat Genet. 2022 Aug;54(8):1167-77. PMID: 35915169.