

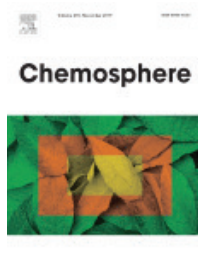
CEG member **Susan Kasper, PhD**, who earlier this year was elected Vice President of the Society for Basic Urologic Research, is a co-author of this exciting new article in *ENDOCRINOLOGY*: Majumdar S, Rinaldi JC, Malhotra NR, Xie L, Hu DP, Gauntner TD, Grewal HS, Hu WY, Kim SH, Katzenellenbogen JA, **Kasper S**, Prins GS. Differential actions



of estrogen receptor α and β via non-genomic signaling in human prostate stem and progenitor cells. *Endocrinology*. 2019 Aug 21. pii: en.2019-00177. doi: 10.1210/en.2019-00177. [PMID: 31433456](#).

Human prostate stem and progenitor cells express estrogen receptors (ERs) ER α and ER β and exhibit proliferative responses to estrogens. In this study, the research team investigated membrane-initiated estrogen signaling in human prostate stem-progenitor cells enriched from primary epithelial cultures and stem-like cell lines from benign and cancerous prostates. The reported findings describe ER α and ER β membrane-initiated signaling in normal and cancerous human prostate stem-progenitor cells with differential engagement of downstream effectors. These signaling pathways influence normal prostate stem-progenitor cell homeostasis, and the study observations thus provide novel therapeutic sites to target prostate cancer stem-cell activity.

Also New in Print



CEG members **Kim Dietrich, Ph.D., Kimberly Yolton, Ph.D., Kimberly Cecil, Ph.D., Changchun Xie, Ph.D., and Aimin Chen, M.D., Ph.D.**, are among the co-authors of this new article describing a study of household exposure to organophosphate (OPFR) and replacement brominated flame retardant (RBFR) in dust during the phase out of polybrominated diphenyl ethers (PBDE's), a class of flame retardants known to act as endocrine disruptors:

Percy Z, La Guardia MJ, Xu Y, Hale RC, **Dietrich KN**, Lanphear BP, **Yolton K**, **Vuong AM**, **Cecil KM**, Braun JM, **Xie C**, **Chen A**. Concentrations and loadings of organophosphate and replacement brominated flame retardants in house dust from the home study during the PBDE phase-out. *Chemosphere*. 2019 Sep 3;239:124701. doi: 10.1016/j.chemosphere.2019.124701. [PMID: 31499316](#).

OPFRs and RBFRs readily migrate from consumer products into dust where humans may be exposed via ingestion and inhalation. The health consequences of exposure are largely unknown at this time, but global production and the persistent nature of these chemicals in the environment have caused concern among consensus groups. As part of the Health Outcomes and Measures of the Environment (HOME) study, the team quantified concentrations and loadings of OPFRs and RBFRs in house dust samples (n=317) collected from the homes of Cincinnati women between 2003 and 2006. In more than 90% of samples, the team detected tris-(1-chloro-2-propyl)-phosphate (TCIPP, range: 70.1-166,000 ng g⁻¹), tris-(1,3-dichloro-2-propyl)-phosphate (TDCIPP, range: 55.2-228,000 ng g⁻¹), triphenyl phosphate (TPHP, range: 34.1-62,100 ng g⁻¹), 2-ethylhexyl-2,3,4,5-tetrabromobenzoate (EH-TBB, range: 2.82-7800 ng g⁻¹), and bis-(2-ethylhexyl)-tetrabromophthalate (BEH-TEBP, range 2.17-13,600 ng g⁻¹). About 80% of samples contained tris-(2-chloroethyl)-phosphate (TCEP, range: 56.8-160,000 ng g⁻¹). The number of people living in the home, floor type (i.e., carpeting vs. hardwood floors) and other variables were associated with some OPFR and RBFR concentrations and loadings. The findings affirm a need for more research on the potential health consequences of exposure.

Watch for the CEG's **next Pilot RFA (December)**! To see similar past RFA, click [here](#).



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Katie Burns, Ph.D., was invited to speak at a US Congressional Briefing (25 Sept) on the importance of research funding for endometriosis, a condition that affects as many as 7 million American women each year. Dr. Burns met with U.S. Senator Rob Portman (R, OH) and Legislative Counsel for U.S. Rep. Steve Chabot (R, OH). She also was able to join U.S. Rep David E. Price (D, NC-4th) *et al.* in honoring outgoing NIEHS Director Linda Birnbaum, Ph.D., D.A.B.T., A.T.S., with a permanent Congressional Record for her scientific contributions.



Important work by Dr. Burns and her team on [endometriosis and PBA exposure](#) was published in December 2018 and has been featured as an NIEHS Science Selection in the Sept 19 issue of *Environmental Health Perspectives*, 127(9): [here](#).