

## News at a Glance

January 23, 2017



**Hong Sheng Wang, PhD** a CEG member and Associate Professor of Pharmacology and Systems Physiology in the UC College of Medicine, has received a 5-year, nearly \$2 million R01 award from the National Institute of Environmental Health Sciences for his study of **Endocrine Disruptors and Heart Health**: NIEHS R01ES0027855-01A1; 02/01/18 – 01/31/23; \$1,974,426. The project builds upon preliminary data and methods developed with the help of two prior CEG Pilot awards, including Dr. Wang's 2013 CEG award "HRC genetic variant and cardiac susceptibility to the pro-arrhythmic impact of BPA." Dr. Wang has also investigated the effects of a BPA alternative, bisphenol S (BPS) on cardiac cells.

As a key part of the new R01, Dr. Wang will leverage resources from the **Fernald Community Cohort** managed by Dr. Susan Pinney. Dr. Wang and his team will analyze BPA levels in urine samples from 600 subjects in the FCC cohort and compare them to electrocardiogram data collected contemporaneously. **The human study is exclusively using data and biospecimens of the FCC.** Illuminating the role of endocrine disruptors in heart health is very important as cardiovascular disease remains a leading cause of death in the U.S., including among women.

Recent publications by Dr. Wang and his colleagues include

Vairamani K, **Wang HS, Medvedovic M**, Lorenz JN, Shull GE. RNA SEQ Analysis Indicates that the AE3 Cl-/HCO3- Exchanger Contributes to Active Transport-Mediated CO2 Disposal in Heart. *Sci Rep.* 2017 Aug 4;7(1):7264. [PMID: 28779178](#)

Ma J, Hong K, **Wang HS**. Progesterone Protects Against Bisphenol A-Induced Arrhythmias in Female Rat Cardiac Myocytes via Rapid Signaling. *Endocrinology.* 2017 Apr 1;158(4):778-790. [PMID: 28324061](#)

The Croatian Academy of Science and Arts has appointed CEG member **Ranjan Deka, PhD**, to the Academy's Scientific Council for Anthropological Research. Dr. Deka's research focuses on DNA analysis to understand genetic variation that explains predispositions to cardiometabolic disorders, particularly in Polynesian and Croatian island populations. See, for example, **Deka R**, Durakovic Z, Niu W, Zhang G, Karns R, Smolej-Narancic N, Missoni S, Caric D, Caric T, Rudan D, Salzer B, Chakraborty R, Rudan P. Prevalence of metabolic syndrome and related metabolic traits in an island population of the Adriatic. *Ann Hum Biol.* 2012 Jan;39(1):46-53. doi: 10.3109/03014460.2011.637512. Epub 2011 Dec 12. [PMID: 22149059](#).



In 2016 Dr. Deka and an international team of collaborators published in **Nature Genetics** their discovery of a novel thrifty variant on chromosome 5 that strongly influences body mass\obesity in Samoans: Minster RL, Hawley NL, Su CT, Sun G, Kershaw EE, Cheng H, Buhule OD, Lin J, Reupena MS, Viali S, Tuitele J, Naseri T, Urban Z, **Deka R**, Weeks DE, McGarvey ST. A thrifty variant in CREBRF strongly influences body mass index in Samoans. *Nat Genet.* 2016 Sep;48(9):1049-54. doi: 10.1038/ng.3620. [PMID: 27455349](#). PMID: PMC5069069. To read more, click [here](#).

See additional recent CEG publications [here](#).



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### Application Deadline for 2018 Pilot Study Funding

Proposals due by 5:00 PM

Wednesday January 31, 2018.

Instructions and application cover sheet are available online:

Click [here](#)

(<http://med.uc.edu/eh/centers/ceg/pilot-project-program>)

### New Publications

**Zhang G, Nebert DW.** Personalized medicine: Genetic risk prediction of drug response. *Pharmacol Ther.* 2017 Jul;175:75-90. Review. [PMID: 28213088](#). PMID: PMC5653378 [Available on 2018-07-01]. Erratum in: Corrigendum to "Personalized medicine: Genetic risk prediction of drug response." *Pharmacol Ther.* 2017 Dec 10. [PMID: 29237545](#).

**Brunst KJ**, Sanchez-Guerra M, Chiu YM, Wilson A, Coull BA, Kloog I, Schwartz J, Brennan KJ, Bosquet Enlow M, Wright RO, Baccarelli AA, Wright RJ. Prenatal particulate matter exposure and mitochondrial dysfunction at the maternal-fetal interface: Effect modification by maternal lifetime trauma and child sex. *Environ Int.* 2017 Dec 14;112:49-58. [Epub ahead of print] [PMID: 29248865](#)

Li D, Mai V, Gerke T, **Pinney SM**, Yaghjian L. Interactions of Family History of Breast Cancer with Radiotherapy in Relation to the Risk of Breast Cancer Recurrence. *J Breast Cancer.* 2017 Dec;20(4):333-39. Epub 2017 Dec 19. PMID: 29285037; [PMCID: PMC5743992](#)