



Sixth Annual Martin Luther King Seminar

Dr. Tyrone Hayes

Department of Integrative Biology at
University of California, Berkeley
B.S. Harvard University

Friday, January 20 at 12:20 pm
Biocomplexity Institute
Auditorium

*Host: Diversity Committee of the
Biological Sciences Department*

*Co-sponsors: Women & Minority Artists & Scholars
Lecture Series, Virginia Tech Life Sciences Seminar,
The Office of Inclusion & Diversity, College of Science
Diversity Committee, College of Natural Resources &
Environment, and Dept. of Biological Sciences*

FROM SILENT SPRING TO SILENT NIGHT: A TALE OF TOADS AND MEN

Dr. Tyrone Hayes is a distinguished scientist who is a Professor in the Department of Integrative Biology at UC Berkeley. He received his B.S. from Harvard University (1989) and his Ph.D. in the Department of Integrative Biology at UC Berkeley in 1993. After a brief post-doctoral fellowship at Berkeley, he was hired by the same department as a faculty member in 1994. Dr. Hayes has received a number of awards for his excellence in research, teaching and mentorship. He has an outstanding record of training undergrads, graduate students and post-docs from diverse backgrounds. His primary research focuses on the role of environmental factors on growth and development in amphibians. In particular, he focuses on the effects of herbicides, such as atrazine, on amphibian growth, development, reproduction and immune function and how these studies predict effects in other wildlife and humans.

Dr. Hayes' research presentation will focus on endocrine disruption of development with emphasis on the role of agricultural chemicals that are widespread contaminants in soil, in water sources and in some drinking water. He will discuss how many pollutant problems are often focused on areas where underprivileged populations live and are most affected. The diversity parts of his presentation will honor Dr. Martin Luther King and will focus on the mentoring of graduate and undergraduate students from underrepresented backgrounds.

Selected publications that broadly illustrate key areas of Dr. Hayes' research, many in collaboration with major figures in the field of endocrine disruption:

Falso PG, Noble CA, Diaz JM, Hayes TB. 2015. The effect of long-term corticosterone treatment on blood cell differentials and function in laboratory and wild-caught amphibian models. Gen Comp Endocrinol 211:73-83.

Sadinski, W, Roth M, Hayes TB, Jones P, Gallant A. 2014. Indicators of the statuses of amphibian populations and their potential for exposure to atrazine in four Midwestern US conservation areas. PLoS ONE 12;9(9):e107018. Epub.

Vandenberg LN, Colborn T, Hayes TB, Heindel JJ, Jacobs DR, Lee D-H, Myers JP, Shioda T, Soto AM, vom Saal FS, Welshons WV, Zoeller RT. 2013. Regulatory decisions on endocrine disrupting chemicals should be based on principles of endocrinology. Reprod Toxicol 38:1-15.

Vandenberg LN, Colborn T, Hayes TB, Heindel JJ, Jacobs DR, Lee D-H, Shioda T, Soto AM, vom Saal FS, Welshons WV, Zoeller RT, Myers JP. 2011. Hormones and endocrine-disrupting chemicals: low-dose effects and nonmonotonic dose responses. Endocr Rev 33:378-455.

Hayes TB, et al. 2011. Demasculinization and feminization of male gonads by atrazine: consistent effects across vertebrate classes. J Steroid Biochem Mol Biol 127:64-73.

Hayes TB. 2010. Diversifying the biological sciences: past efforts and future challenges. Mol Biol Cell 21(22):3767-9.

