

School of Biological Sciences

Spring 2010



THE LECTURE SERIES AND ITS PURPOSE

The R. Omar and Evelyn Rilett Family Life Sciences Lecture Series was established in April 2007. It recognizes Dr. Rilett's vision and leadership, which built a Department of Biological Sciences at Illinois State University that advanced education in the natural sciences, fostered scholarly endeavors, and nurtured the development of research to the benefit of all who chose to teach and learn at this institution. The purpose is to bring outstanding life scientists and lectures to Illinois State University to benefit academic and local communities.

School of Biological Sciences

presents

R. Omar and Evelyn Rilett

Family Life

Sciences Lecture Series

Sponsored by the

School of Biological Sciences, Phi Sigma,
College of Arts and Sciences, and
Research and Sponsored Programs



March 18th, 2010

7:00 P.M.

Brown Ballroom

Bone Student Center

Illinois State University

LECTURE SERIES PROGRAM

WELCOME

Dr. H. Tak Cheung

Director, School of Biological Sciences

HISTORY OF LECTURE SERIES

Dr. Herman Brockman

Professor of Genetics, Emeritus

Distinguished Professor

INTRODUCTION OF SPEAKER

Dr. David Rubin

Associate Professor of Physiology,

School of Biological Sciences

PRESENTATION

Dr. Tyrone Hayes,

Department of Integrative Biology,

University of California-Berkeley



Dr. Hayes is an authority on the effects of the herbicide atrazine on endocrine disruption. He has pioneered the field by showing that atrazine has many functions, besides being an herbicide, which can alter normal development in animals resulting in a multitude of developmental defects, deformities, and cancer.

Highlights of Dr. Tyrone Hayes Career, thus far:

- 1985, Harvard University. Mentored by Drs. Karel Liem (ichthyology), Pere Alberch (herpetology), and Bruce Waldman (behavioral ecology and evolution). It was Dr. Waldman who first recognized Dr. Hayes' excitement about working with frogs and toads and ability to excel in a laboratory.
- Dr. Hayes Honor's Thesis, "Influence of temperature on larval growth, development, metamorphosis and sex differentiation in wood frogs."
- 1989, Graduated *Summa Cum Laude* from Harvard University.
- 1989, UC Berkeley. PhD studies in Department of Integrative Biology mentored by Dr. Paul Licht (comparative endocrinology).
- 1993, Completed PhD, Dissertation examined the role of hormones in mediating developmental responses to environmental changes in amphibians.
- Post-doctoral studies at the National Institute of Child Health and Human Development, National Institutes of Health and the Cancer Research Laboratories, UC Berkeley (funded by the National Science Foundation), examined molecular mechanisms of hormone action in amphibians.
- 1994, Joined the faculty in the Department of Integrative Biology at UC Berkeley as Assistant Professor.
- 1997, Consultant for Novartis (which eventually became Syngenta). Results showed that the herbicide atrazine is a potent endocrine disruptor that chemically castrates and feminizes exposed male amphibians at low ecologically relevant concentrations.
- 1998, Promotion and Tenure to Associate Professor at UC Berkeley.
- 2003, Promotion to Full Professor at UC Berkeley.
- Research Focus: Role of environmental factors on growth and development in amphibians. Environmental factors affecting amphibian development include synthetic chemicals (such as pesticides) that interact with hormones in a variety of ways to alter developmental responses. Current research focuses on the effects of endocrine disrupting pesticides on amphibian growth, development, reproduction and immune function and how these studies predict effects in other wildlife and humans.
- Published more than 40 papers, over 150 abstracts, and more than 300 presentations.
- Awards: Distinguished Teaching and Distinguished Mentor Awards (UC Berkeley), Jennifer Altman Award for Integrity in Science (Jennifer Altman Foundation), Rachel Carson Memorial Award (Pesticide Action Network), Emerging Explorer Award (National Geographic Society), and President's Citation Award (American Institute of Biological Sciences).

For additional information, please visit Dr. Hayes' website at:
www.AtrazineLovers.com