



**Distinguished Alumni Lectures  
in Reproductive Physiology**

**Fiftieth Anniversary  
Seminar Series**

**Theme: “Scientific Highlights of My  
Career in Reproductive Physiology”**



**West Virginia University**

DAVIS COLLEGE OF AGRICULTURE,  
NATURAL RESOURCES AND DESIGN



**Dr. Harold E. Kidder, Creator of the first course in Animal Reproductive Physiology at West Virginia University.**



**Dr. Roy L. Butcher, Major Professor to the first M.S. and Ph.D. graduates in the Interdisciplinary Graduate Program in Reproductive Physiology at West Virginia University**

## Introduction

Fifty short years ago, the Interdisciplinary Faculty of Reproductive Physiology received approval to offer the M.S. and Ph.D. degrees from West Virginia University. Initial contributing members were Nicholas Fugo and Roy Butcher in Obstetrics and Gynecology, Charles Norman and Gideon Louw in Biology, John Jones in Internal Medicine, Walter Moran in Surgery, Robert McCafferty in Anatomy, Harold Kidder, Keith Inskeep, Clyde Johnson, Donald Horvath, and Harold Hyre in Animal and Veterinary Science. Richard Cenedella, John Thomas, and Alexander Kenny in Pharmacology, Edmund Flink in Internal Medicine and Joginder Nath in Genetics were important early leaders as well.

David Allen Barley, a graduate of the College of William and Mary, received the first M.S. degree in Reproductive Physiology from West Virginia University in 1966. David Barley was a student with Dr. Roy Butcher in the Department of Obstetrics and Gynecology. His studies examined the local nature of utero-ovarian relationships in the pseudopregnant rat and the guinea pig and were published in *Endocrinology* (79:119-124, 1966; 84:476-481, 1969). Marc Edward Freeman, a graduate of Moravian College, worked with Louw, Inskeep and Butcher; Roy Butcher was his doctoral advisor. Marc completed the M.S. in 1967 and became the first Doctoral graduate of the program in 1970. He published 3 papers from work at WVU (*J. Animal Sci.* 29:479-482, 1969; *Endocrinology* 86:717-720, 1970; *Biol. Reprod.* 2: 209-215, 1970). In the ensuing years, the interdisciplinary faculty has granted 93 M.S. and 63 Ph.D. degrees.

Current faculty members include Heather Billings (Neurobiology and Anatomy), Melanie Clemmer (Obstetrics and Gynecology), Robert Dailey (Animal and Nutritional Sciences), Robert Goodman (Physiology and Pharmacology), Stanley Hileman (Physiology and Pharmacology), Ida Holaskova (Station Statistician, WV Agricultural and Forestry Experiment Station), Keith Inskeep (Animal and Nutritional Sciences), Marlon Knights (Animal and Nutritional Sciences), Rajesh Naz (Obstetrics and Gynecology), Robert Taylor (Animal and Nutritional Sciences), Michael Vernon (Obstetrics and Gynecology), Matthew Wilson (Animal and Nutritional Sciences), and Jianbo Yao (Animal and Nutritional Sciences).

In celebration of the 50th anniversary of the WVU Reproductive Physiology Program, six graduates from the program will return to the WVU campus to give lectures in their respective areas of Reproductive Physiology. Our returning distinguished lecturers are profiled below.

## The Lecturers

**Dr. Alison Brown:** Professor and Chair, Department of Biology at Wingate University in Wingate, NC. A Tennessee native and University of Tennessee graduate (1996, 1997, 2000), Alison completed her Ph.D. in Reproductive Physiology at WVU in 2003. Her dissertation featured a study of late embryonic and fetal mortality in sheep. She has been chosen as the commencement speaker for the Davis College of Agriculture, Natural Resources and Design on May 13, 2016. Alison is known for her innovation of teaching animal reproductive physiology in a liberal arts setting. She and her students currently do research on the effects of sex of co-twin on reproductive traits and lifetime productivity of ewes, in collaboration with the U. S. Sheep Experiment Station in Dubois, ID. **Her lecture entitled “Does sex of co-twin affect lifetime reproductive performance in the ewe?” will be presented on May 12, 2016 at 3 PM.** *Her return to WVU is sponsored by Dean Daniel Robison of the Davis College of Agriculture, Natural Resources and Design.*

**Dr. Duane Keisler:** Professor of Animal Science at the University of Missouri. Duane grew up on a beef cattle farm in South Carolina. A graduate of Clemson University (B.S. 1977), he studied with Jim Wiltbank at Texas A and M University, Beeville (M.S. 1979). He earned his doctorate in Reproductive Physiology from WVU in 1983. His dissertation contributed to the understanding of puberty in cattle and sheep. Duane has mastered a three-way appointment in teaching, research and extension, and was selected as a Distinguished Alumnus of the Davis College in 2015. He is a world recognized authority on leptin and its role in reproductive biology. Duane will present 3 lectures that chronicle his career, beginning with his studies at WVU, during the week ending June 11, 2016. On June 11, Duane will be honored as a Distinguished Alumnus of the College of Agriculture, Natural Resources and Design for 2015. His talks are titled **“The hypothalamic-pituitary-ovarian axis and regulation of the secretion of LH.”**; **“The impact of nutritional status on reproductive performance in livestock – mechanisms of action.”**; and **“Predicting growth and carcass composition in livestock via metabolic profiling.”**

**Dr. Steve Washburn:** Professor at North Carolina State University. Steve earned a B.S. in Animal Science at WVU in 1971, an M.S. in Animal Science from the University of Wisconsin in 1973 and his Ph.D. in Reproductive Physiology from WVU in 1985. Dr. Washburn’s outstanding career includes 2 years in a dairy beef development project in Wisconsin, service as an

Extension Agent in Jefferson County, WV (April 1975 – August 1981) and a long tenure as Extension Dairy Specialist at North Carolina State University (March 1986 – present). In all of these roles, Dr. Washburn has excelled as a leader and been recognized by numerous awards from professional associations. He is known internationally for his work on reproductive management in forage dairies. He has published extensively and served his department and college by teaching, peer reviewing, and grantsmanship. Steve will be honored as a Distinguished Alumnus of the Davis College of Agriculture, Natural Resources and Design on June 11, 2016. He will present two talks related to his work in reproductive management in forage-based dairy operations, entitled **"Should we control her cycle, change the dairy cow, or both?"** on June 9 and **"Evolution of a pasture-based mindset for dairy production."** on June 10, 2016.

**Dr. Joseph Ottobre:** Professor of Animal Science at the Ohio State University. Joe has authored over 70 scientific papers, and made invited presentations throughout the USA and at conferences in India and Poland. After completing his B.S. at Pennsylvania State University (1976), Joe earned his M.S. (1979) and Ph.D. (1981) in Reproductive Physiology from West Virginia University. After post-doctoral work at the University of Arizona (1981-1985), he became an Assistant Professor at Ohio State University in 1985. Joe's scientific career has focused on mechanisms involved in the regulation of the mammalian corpus luteum. It began with his graduate work on the regulation of uterine secretion of prostaglandin  $F_{2\alpha}$  in domestic farm species. During postdoctoral work, he was involved in establishment of a novel model for studying luteal regulation during early pregnancy in the rhesus monkey. At Ohio State, he has studied luteal prostaglandins in rhesus monkeys. Joe teaches Reproductive Physiology, Animal Sciences Introductory Laboratory, Endocrinology, and Graduate Seminar and advises 40 students. On June 11, Joe and his wife Ann Connor Ottobre (M.S. Reproductive Physiology, 1981) will be honored as 2016 Distinguished Alumni of the Davis College of Agriculture, Natural Resources and Design. His talk on June 9 or 10 is entitled: **"Investigations of the regulation of corpus luteum function: potential role of vitamin C."**

**Dr. Marc E. Freeman:** The Lloyd Beidler Professor Emeritus of Biological Science and a Distinguished Research Professor Emeritus at Florida State University. Marc was the first doctoral graduate in Reproductive Physiology at WVU (1970). He has had a distinguished career in basic research and scientific leadership. His ground-breaking work with prolactin began with a demonstration that mating induced twice-daily secretory peaks of the

hormone. Others showed that prolactin activated luteal function in rodents. He then spent his scientific career elucidating the neural pathways from the uterine cervix through the brain to the pituitary gland eventuating in this unique pattern of prolactin secretion. He became the international authority on secretion and action of prolactin in rodents and his research at FSU was funded continuously by the National Institutes of Health, private foundations and the pharmaceutical industry throughout his career. Marc was active in The Endocrine Society, including service as an Editorial Board member and Editor of Endocrinology (there was an editor-in-chief). He published extensively, served on numerous NIH, NSF and USDA review panels, and educated 13 graduate students and 10 postdoctoral trainees. He was a visiting professor at Semmelweis University Medical School in Budapest, Hungary, University of Sao Paulo in Brazil, and The University of Otago Medical School in New Zealand. In retirement, he consults on grant preparation with colleagues and on licensing issues with the pharmaceutical industry. In the community, he volunteers with developmentally disabled adults, serves as an educator for students preparing for GED exams and serves as a guide at a local wildlife refuge. At the Florida state level, Marc is currently active in guiding legislation on environmental issues. In his spare time, he has collected Porsches and serves as the editor of the local Porsche Club of America Newsletter. Marc will present: **"The Excitement of Studying Reproductive Physiology at West Virginia University"** on September 21, 2016.

**Dr. John Peluso:** Professor of Cell Biology and Obstetrics and Gynecology at the University of Connecticut School of Medicine. John came to WVU with a B.S. and M.S. from Slippery Rock College. He studied aging of oocytes in the laboratory of Dr. Roy Butcher and received his Ph.D. in Reproductive Physiology from WVU in 1974. John has held positions in both academia and industry, and has been at the University of Connecticut, School of Medicine for 30 years. For 14 of those years, he served as the Director of the In Vitro Fertilization Laboratories. His research, which was funded by the National Institutes of Health for nearly 20 years, has focused on the regulation of ovarian function by progesterone. His studies identified Progesterone Receptor Membrane Component 1 as an important regulator of ovarian function. Dr. Peluso's lecture **"The Saga of Progesterone Receptor Membrane Component 1 as Told by Cells, Transgenic Mice and Infertile Women"** will be presented on October 13, 2016.

## ***Acknowledgements***

The Davis College of Agriculture, Natural Resources and Design, WVU  
Department of Physiology and Pharmacology, School of Medicine, WVU  
Davis-Michael Scholars Program, WVU  
Division of Animal and Nutritional Sciences, School of Agriculture, WVU  
Department of Obstetrics and Gynecology, School of Medicine, WVU