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Naomi S. Rowland

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Education

- ***Master of Science:*** University of Tennessee 2005
- ***Bachelor of Science****:* Western Kentucky University 2003

Teaching Experience

- ***Western Kentucky University, Department of Biology***
  - **Introduction to Cell and Molecular Biology Laboratory, BIOL 322** (2016 to present)
    - Totally redesigned course Fall 2016 into science process course
    - Collaborated with Dr. Seth Bordenstein (Vanderbilt U) to bring The *Wolbachia* project into 322 for molecular biology skills
    - Joined the Ciliate Genomics Consortium (Clermont Colleges) to use *Tetrahymena* for cell biology skills
  - **Genome Discovery and Exploration, BIOL 212** (2014 to present)
    - Initiative from Howard Hughes Medical Institute
    - Students each isolate a bacteriophage from a soil sample and purify genome
  - **Plant Pathology, BIOL 317** (2013 to present)
    - Focus on plant/pathogen interactions and genetic mechanisms of disease
  - **Introduction to Research, BIOL 199** (Taught 12 sections 2010-2014)
    - Hands-on laboratory techniques course
    - Taught students reagent preparation, experimental design, other general laboratory techniques

- ***Western Kentucky University, Department of Agriculture***
  - **Agricultural Biotechnology, AGRI 355** (2013 to present)
    - Totally new class to the department of agriculture
    - Explained the technology behind familiar ag products such as GMOs, Roundup Ready and Bt crops, cloned animals and biofuels
  - **Plant Pathology, AGRO 418** (2011 to present)
    - Incorporated examples of diseases affecting turf, landscape plants, crops, and forests to be relevant to all a variety of agriculture majors
    - Update each semester to include newly discovered diseases in US
  - **Introduction to Environmental Science, AGRI 280** (2015-present)
    - Resurrected this class for the Colonnade program
    - Class assignments are relevant to student's life such as examination of their own water, energy and trash usage.

Other Career Experience

- ***Biotechnology Center Coordinator, Ogden College of Science, Western Kentucky University*** October 2009-present
  - Train numerous undergraduate and graduate students on lab techniques, use of scientific equipment and lab safety
  - Design and troubleshoot experiments, analyze data, assist with scientific writing

- ***Research Assistant, Department of Agriculture, Western Kentucky University***
  May 2007- October 2009
  - Managed USDA laboratory on WKU campus as well as barn and field plots
  - Supervised and trained 9 undergraduate students in general laboratory techniques

- ***Research Assistant, Department of Biology, Western Kentucky University***
  May 2005- April 2007
  - Responsible for all aspects of laboratory management
  - Supervised and trained 11 undergrad, 2 graduate students in individual research projects

Publications

- Philips, TK, Callahan, M, Orozco, J, **Rowland, N.** 2016. Phylogenetic Analysis of the North American Beetle Genus *Trichiotinus* (Coleoptera: Scarabaeidae: Trichiinae). Psyche. 2016, 1584962.

- Maples, J, Brault, J, Shewchuk, B, Witczak, C, Zou, K, **Rowland, N**, Hubal, M, Weber, T and Houmard, J. 2015. Lipid exposure elicits differential responses in gene expression and DNA methylation in primary human skeletal muscle cells from severely obese women. Physiol Genom. 47:139-146.

- Sharma, BV, **Rowland, NS**, Clouse, MM and Rice, NA. 2014. An improved assay for measuring low levels of nitric oxide in cultured pulmonary myofibroblasts. Adv Biol Chem. 4.

- Mefford, AM, Ayers, CC, **Rowland, NS** and Rice, NA. 2013. The phka1 deficient I/LnJ mouse exhibits endurance exercise deficiency with no compensatory changes in glycolytic gene expression. Op J Mol and Int Physiol. 3: 87-94.

- Netthisinghe, AMP, Gilfillen, B, Willian, WT, **Rowland, NS** and Sistani, KR. 2011. Inorganic fertilizers after broiler litter amendment reduce surplus nutrients in orchardgrass soils. Agronomy J. 103: 536-543.

- Gilfillen, RA, **Rowland, NS,** Willian, WT, Sleugh, BB, Tekeste, MZ and Sistani, KR. 2010. Effects of broiler litter application on nutrient accumulation in soil. Forage and Grazinglands. 1105-01-RS.

- Winchester, JS, Rouchka, EC, **Rowland, NS** and Rice, NA. 2007. *In Silico* characterization of phosphorylase kinase: evidence for an alternate intronic polyadenylation site in PHKG1. Mol Genet and Metab. 92(3): 234-242.

- **Smith, NR**, Trigiano, RN, Windham, MT, Lamour, KH, Finley, LS, Wang, X and Rinehart, TA. 2007. AFLP markers identify *Cornus florida* cultivars and lines. J Amer Soc Hort Sci. 132(1): 90-96.

- Habera, L, Lamour, KH, **Smith, NR** and Donahoo, R. 2004. A single primer strategy to fluorescently label selective AFLP reactions. Biotechniques. 37(6): 902-904.

Professional Research Presentations

- ***No recent professional research presentations due to current position restrictions***

- **Rowland, N.S.**, Gilfillen, R.A, Sleugh, B.B, Willian, W.T. and Futrell, M.L. 2007. Nutrient accumulation in sorghum-sudangrass with a winter rye covercrop after poultry litter application. ASA-CSSA-SSSA National Meeting.

- **Rowland, N.S.** and Rice, N.A. 2006. Nitric oxide suppresses pulmonary myofibroblast phenotypes. American Society of Biochemistry and Molecular Biology, FASEB J:20(4) A510.

- **Smith, N.R.** and Trigiano, R.N. 2005. AFLP markers identify *Cornus florida* cultivars and lines. American Society of Horticultural Science Research Conference.

- **Smith, N.R.**, Trigiano, R.N., Lamour, K.H., Habera, S.L. and Windham, M.T. 2005. AFLP markers identify flowering dogwood cultivars and lines. Southern Nursery Association Research Conference Proceedings. 50: 676-678.

- **Smith, N.R.**, Trigiano, R.N., Lamour, K.H. and Windham, M.T. 2004. DNA fingerprinting of Flowering Dogwood Cultivars. Southern Nursery Association Research Conference Proceedings. 49: 595-596.