

NANCY A.

2007 Ogden College of Science and Engineering Faculty Excellence in Research/ Creativity Award  
1997 National Science Foundation Summer Institute in Japan Review Panel participant  
1995-2006 Travel Awards from 5 professional societies to attend their national meetings  
1989-1993 Western Kentucky University –Cherry Presidential scholarship (highest academic scholarship)  
President’s List (2 semesters); Dean’s List (6 semesters)  
1989 Warren Co. Junior Miss Scholarship

## **GRANTS AND FELLOWSHIPS**

### **Completed**

Role: P.I.; “Epigenetic regulation of renin angiotensin system (RAS) genes linked to hypertension”

Role: P.I.; “Prevalence and Mechanism of Essential Hypertension in Kasigau, Kenya”  
WKU-Research and Creative Activities Program (RCAP)  
01/01/14-05/30/15; \$4,960

Role: P.I.; “Prevalence and Mechanism of Essential Hypertension in Kasigau, Kenya”  
WKU-Research and Creative Activities Program (RCAP)  
01/01/12-05/30/13; \$9,692

Role : P.I.; “Muscle adaptation in response to voluntary exercise in phosphorylase kinase deficient mice”  
WKU Research Foundation  
Faculty Fellowship  
10/01/06-09/30/07; \$2000

Role: P.I.; “Role of Nitric Oxide Signaling in Myofibroblast Differentiation”  
Junior Faculty Research Grant  
WKU Research Foundation  
03/11/03 – 03/10/04; \$ 4000

## **PUBLICATIONS**

### Peer-reviewed papers

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#### *In Revision*

20. Dobrovolskaite, A.<sup>§</sup> and **Rice, N.A.** (2022) Dietary salt intake and hypertension in a rural population of East Africans. *Int. J. Hypertens.*

#### *In preparation*

19. Williams, L. <sup>§</sup>, Freeman, J.C. <sup>§</sup> Wright, S<sup>§</sup>., Porter, L. <sup>§</sup>, **Rice, N.A.** (202x) Polymorphic variants of renin angiotensin genes are the predominant allele but not correlate with an increased risk for hypertension in a cohort of rural East Africans. *Int. J. Mol. Epidemiol. Genet.*, In preparation.
18. Sharma, B.V., Rowland, N.S., Faughn, J. <sup>§</sup>Eastes, A. N. <sup>§</sup>, Walch, E.M. <sup>§</sup> and **Rice, N.A.** (202x) Pulmonary proto-myofibroblast differentiation increases endothelial nitric oxide synthase expression and cell survival. *Cell. Mol. Biol. Lett.* In preparation

#### *Published*

17. Knapp, K.L. <sup>§</sup> and **Rice, N.A.** (2015) Human Coinfection with *Borrelia burgdorferi* and *Babesia microti* in the United States. *J. Parasit. Res.* **2015**: 587131.
16. Sharma, B.V., Rowland, N.S., Clouse, M.M., <sup>§</sup> and **Rice, N.A.** (2014) An improved bioassay for measuring low levels of nitric oxide in cultured pulmonary myofibroblasts. *Adv. Biol. Chem.*,**4**: 214-221.
15. Ochwang'i D, Kimwele C, Kiama SG, **Rice N.** (2013) Transcriptional regulation of rat endothelial nitric oxide promoter in pulmonary myofibroblasts cells and its implications in pulmonary fibrosis. *Afr. J. Pharmacol. Ther.* **2**:1–8.
14. Mefford, A.M., <sup>§</sup> Ayers, C.C., <sup>§</sup>Rowland, N.S. and **Rice, NA.** (2013) The *phka1* deficient I/LnJ mouse exhibits endurance exercise deficiency with no compensatory changes in glycolytic gene expression. *Open J. Mol. Integr. Physiol.*, **3**: 87-94
13. Kang, H. et al. (2012) Gender differences in student performance in large lecture classrooms using

- personal response systems (“clickers”) with case studies. *Learn. Media. Technol.* **37**: 53-76. (*Large pedagogical work from NSF CCLI grant– listed as Associate Author due to journal limitation of author number*)
12. Wolter, B. *et al* (2011) Students’ perceptions of using personal response systems (“clickers”) with cases in science. *J. Col. Sci. Teach.* **40**: 14-19. (*Large pedagogical work from NSF CCLI grant– listed as Associate Author due to journal limitation of author number*)
  11. Lundeberg, M.A., Kang, H., Wolter, B., delMas, R., Armstrong, N., Borsari, B., Boury, N., Brickman, P., Hannam, K., Heinz, C., Horvath, T., Knabb, M., Platt, T., **Rice, N.**, Rogers, B., Sharp, J., Ribbens, E., Maier, K.S., Deschryver, M., Hagley, R., Goulet, T. , and Herreid, C.F. (2011) Context matters: increasing understanding with interactive clicker case studies. *Educ. Technol. Res. Dev.* **59**:645–671.
  10. Winchester, J. S. <sup>§r</sup>

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*from WKU Research Foundation*

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BMD 493:                   **Ethics in Health and Biomedical Sciences**

**Western Kentucky University**

BIOL 113:                   **Introductory Biology**  
BIOL 103:                   **Introduction to Environmental Science**  
BIOL 120:                   **Introductory Biology -Cells, Genetics, Biochemistry**  
BIOL 120H:                   **Introductory Biology -Cells, Genetics, Biochemistry**  
BIOL 153:                   **Bioethics**  
BIOL 275:                   **Special Topics: The British Contribution to Science**  
BIOL 319H:                   **Intro to Molecular Biology and Cell**  
BIOL 403/403G:                   **Molecular Basis of Cancer**  
BIOL 411/H/G:                   **Cell Biology**  
BIOL 412:                   **Cell Biology lab**  
BIOL 560:                   **Adv. Cell Biology**  
BIOL 485/H:                   **Medicine in Kenya**

**INVITED TALKS**

February 2022                   American Society of Biochemistry and Molecular Biology Catalyst Conversation  
  “Women in Leadership in Higher Education”  
May 2016                       University of Nairobi; Department of Medical Physiology  
  “The genetic epidemiology of essential hypertension in rural Kenya: maladaptive or  
  inconsequential?”  
April 2014                       University of Louisville; Department of Epidemiology  
  “The genetic epidemiology of essential hypertension in rural Kenya: maladaptive or  
  inconsequential?”  
October 2012                   Kentucky Girls STEM Collaborative Conference – Panelist speaker – “Women in  
  Science”

April 2000      “Myofibroblasts: Molecular Crossdressers”  
Bemidji State University; Department of Chemistry  
“Pathways to Policy Careers: The National Academy of Science’s Policy Intern  
Programs”

March 1999      Western Kentucky University; Department of Biology  
“Phosphorylase Kinase: A new paradigm in skeletal muscle architecture”

## **SOCIETY MEMBERSHIPS**

American Physiology Society (2012-2017)  
Western Kentucky University Sigma Xi (2003 - present)  
The Kentucky Academy of Science (2003 -2019)  
American Society of Cell Biology (2001- present)

Science Advancement - Cottrell College Science Awards; NIH-National Heart, Lung, Blood Institute –R13 Study Section; Kentucky Academy of Science Research grants; Murdoch Foundation

**University**

**University of South Alabama**

College of Allied Health Professions Promotion and Tenure Committee (2019-present)

Council on International Education and Scholarship Committee (2021-

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