

## **WILLIAM SONGOCK, PhD**

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Location: Economics Building Room 214-6

### **Employment Experience**

- 3/1/2020 – Present Lecturer at Kenyatta University School of Medicine Department of Microbiology and Parasitology
- 08/01/2018-12/30/2019 Assistant professor of microbiology and immunology at Centenary college of Louisiana, USA.
- 8/01/2018-12/30/2019 Visiting postdoctoral research fellow at Louisiana State University Health Sciences Center in Shreveport Louisiana. USA
- 06/01/2017-08/01/2018 Postdoctoral fellow at Louisiana State University Health Sciences Center in Shreveport Louisiana. My research focused on how the interactions of human papillomavirus (HPV) E7 oncoprotein with regulatory proteins induce changes in the host gene expression patterns that result in persistent infection and HPV-associated cancers. Using organotypic cell culture, site-directed mutagenesis, CRISPR, viral oncoprotein expression, RT-PCR, western blotting, chromatin immunoprecipitation and gene sequencing, I was able to shed light on how viral host interactions contribute to viral persistent infection that could result in malignancies (Salary \$50,000 per year)
- 07/24/2011-05/31/2017 Research associate at Louisiana State University Health Sciences Center in Shreveport Louisiana – Conducted basic molecular biology research on transcription regulation by HPV. I taught molecular biology methods to current and rotating students. Additionally, I presented research on various local and international seminars.
- 03/21/2007-07/24/2011 Tutor of General Algebra, biology, and anatomy & physiology tutor at Middle Tennessee State University, Murfreesboro, Tennessee.

### **Education**

- 2011-2017 Doctor of Philosophy in Medical microbiology and immunology (**Integrated Masters and PhD**), Louisiana State University Health Sciences Center, Shreveport Louisiana. USA
- 2006-2011 Bachelor of Science in Biology (*Magna Cum Laude*), Middle Tennessee State University, Murfreesboro, Tennessee. USA
- 2005- 2006 Bachelor of Arts in Education, (First year), Moi University Main campus, Kesses
- 2000-2003 Kenya Certificate of Secondary School Education (KCSE), Uasin Gishu High School, Eldoret, Kenya

### **Teaching Experience**

- 03/01/2020- Present **Lecturer** Kenyatta University School of Medicine: Courses taught- Introduction to Medical Virology (Pharmacy Department), Pathogenic Viruses (Medicine), Immunology (Pharmacy)
- 08/01/2018- 12/30/2019 **Assistant Professor** of the following courses: Microbiology, immunology, infectious disease pathogenesis, molecular virology, principles and methods in biology, and structure and functions of organism. Centenary College of Louisiana Shreveport LA, USA
- 08/18/2015 Laboratory teaching assistant, Louisiana State University Health Sciences Center, Department of Pathology, Shreveport, LA
- 01/2011-12/2011 Biology and general chemistry tutor, Tennessee Louis Stokes Alliance for Minority Participation, Middle Tennessee State University, Murfreesboro, TN
- 01/2007-12/2009 Mathematics, biology, anatomy & physiology tutor, Middle Tennessee State University Athletics Department, Murfreesboro, TN
- 03/2007-05/2007 General algebra tutor, Middle Tennessee State University Department of Disabled Student Services, Murfreesboro, TN

### **Trainings**

- 11-11-2020 Virtual training seminar by Kenyatta University Research and Innovation Office on where to publish
- 11-24-2020 Gender and Equality Training at Kenyatta University
- 10-26-2020-11-06-2020 Design thinking Course conducted by Hochschule Bonn-Rein- Sieg University of Applied Sciences. Germany
- 10-6-2020-10-9-2020 KU TPDEX's Zoom Meeting. Pedagogical training for educators in the school of medicine on how to be effective teachers.
- 09-14-2020 Training on online blended learning facilitated by Kenyatta University Digital school.

### **Mentorship**

9-22-20200

Offered constructive criticism to Japhet Wambani a PhD student in the Department of Pathology who presented his doctoral work on antimicrobial effects of Antibacterial effects of *O. Basillicum*

### Certification and Special Skills

- 1) **Writing:** National institute of Health, (NIH) RO1 and R21 grant writing, and manuscript preparation.
- 2) **Molecular biology skills:** Chromatin immunoprecipitation, cloning, transformation, western and Southern blots. Mammalian cell culture, organotypic epithelial culture, and CRIPR
- 3) **Communication:** Oral and poster presentations
- 4) **Computer Skills:** Microsoft Office (MS word, PowerPoint, Excel, and Outlook, OneDrive), Canvas and EndNote reference manager.

### Grant awards and Academic Honors

- 8/26/2006-05/14/2011 NCAA Full-Ride Athletic Scholarship, awarded \$30,000 annually from fall of 2006 to spring of 2011, Middle Tennessee State University, Murfreesboro, TN
- 1/18/2019 Awarded \$2500 Charlton Lyons Research Award to study HPV transcription regulation
- 1/23/2018 Awarded \$15,000 start-up funds to set up my lab at Centenary College of Louisiana.
- 05/11/2010 Middle Tennessee Blue Raider Award for Academic Excellence, Middle Tennessee State University, Murfreesboro, TN
- 11/16/2010 Science Senior Student Honor Award, Middle Tennessee State University, Murfreesboro, TN
- 01/28/2010 Blue Raider Certificate of Academic Excellence, Middle Tennessee State University, Murfreesboro, TN.
- 10/17/2009 National Collegiate Athletic Honor Society, Greencastle, IN
- 04/26/2008 The Honor Society of Phi Kappa Phi, Middle Tennessee State University, Murfreesboro, TN
- 02/16/2008 All-Academic Men's Track Field Award (NCAA), New Orleans, LA.
- 08/28/2007 Tennessean Brains and Brawn Award for Academic and Athletic Excellence. Nashville, TN
- 05/31/2007 Sunbelt Conference Commissioner Award for Academic Excellence, New Orleans, LA

### 10 Publications: Peer Reviewed Scientific Journals

- 03/13/2020 Rice S, Kim SM, Rodriguez C, **Songock W**, Raikhy G, Lopez R, Henderson L, Yusufji A, Bodily J. Suppression of a Subset of Interferon-Induced Genes by Human Papillomavirus Type 16 E7 via a Cyclin Dependent Kinase 8-Dependent Mechanism. *Viruses*. 2020 Mar 13;12(3):311. doi: 10.3390/v12030311. PMID: 32183180; PMCID: PMC7150855.
- 10/30/2019 Matthew L. Scott, Brittany L. Woodby, Joseph Ulicny, Gaurav Raikhy, A. Wayne Orr, **William K. Songock**, Jason M. Bodily. Human papillomavirus type 16 E5 inhibits interferon signaling and supports episomal viral maintenance. *Journal of Virology* Oct 2019. DOI: 10.1128/JVI.01582-19
- 10/31/2018 J. T. Guidry, J. E. Myers, M Bienkowska-Haba, **Songock WK**, X Ma, M Shi, C. O. Nathan, J. M. Bodily, M. J. Sapp, R. S. Scott. Inhibition of Epstein-Barr Virus Replication in Human Papillomavirus-Immortalized Keratinocytes. *Journal of Virology* Oct 2018, JVI.0121618; DOI: 10.1128/JVI.01216-18
- 04/15/2018 Woodby BL, **Songock WK**, Scott LM, Raikhy G, and Bodily JM. Induction of interferon kappa in human papillomavirus type 16 infection by transforming growth factor beta-induced promoter demethylation *J Virol*. 2018 Mar 28;92(8); DO: 10.1128/JVI.01714-17
- 3/31/2018 Scott ML, Coleman DT, Kelly KC, Woodby B, **Songock WK**, Cardelli JA, Bodily JM. Human papillomavirus type 16 E5-mediated upregulation of met in human keratinocytes. *Virology*. 2018 Jun; 519:1-11. doi: 10.1016/j.virol.2018.03.021. Epub 2018 Mar 31.
- 12/01/2017 Hong, S., S. Cheng, **Songock WK**, J. Bodily, and L. A. Laimins. 2017. Suppression of MicroRNA 424 Levels by Human Papillomaviruses Is Necessary for Differentiation-Dependent Genome Amplification. *Journal of virology* **91**.
- 04/24/2017 **Songock WK**, Scott ML, Bodily JM. Regulation of the human papillomavirus type 16 late promoter by transcriptional elongation. *Virology*. 2017 Jul; 507:179-191. doi: 10.1016/j.virol.2017.04.021. Epub 2017 Apr 24.
- 04/04/2017 **Songock WK** and Bodily JM. Regulation of the human papillomavirus type 16 late promoter by transcriptional elongation. American Association for Cancer Research Conference, Washington, DC, USA
- 04/05/2017 Joseph T. Guidy, **Songock WK**, Xiaohui Ma, and Rona Scott. Reduced Epstein-Barr virus replication in human papillomavirus-immortalized keratinocyte organotypic raft culture. American Association for Cancer Research Conference, Washington, DC, USA.
- 11/08/2016 **Songock WK**, Seong-man Kim, and Bodily JM. The human papillomavirus E7 oncoprotein as a regulator of transcription. *Virus Res*. 2016 Nov 8. pii: S0168-1702(16)30703-1. doi: 10.1016/j.virusres.2016.10.017. PMID27818212
- 08/22/2016 Dykes, S. S., Gao, C., **Songock, WK**, Bigelow, R. L., Vande Woude, G., Bodily, J. M., & Cardelli, J. A. (2016). Zinc finger E-box binding homeobox-1 (Zeb1) drives anterograde lysosome

trafficking and tumor cell invasion via upregulation of Na<sup>+</sup>/H<sup>+</sup> exchanger-1 (NHE1). *Mol Carcinog*. doi: 10.1002/mc.22528) PMD 27434882

**12 Publications: Copyrighted abstract booklets published at the following International Scientific meetings**

- 11/1/2019 Sadie M. Rice, Gaurav Raikhy, **William K. Songock**, Seong-man Kim<sup>1,2,3</sup>, Cynthia M. Rodriguez, Jason M. Bodily. Interaction between the Human Papillomavirus Oncoprotein E7 and Cyclin Dependent Kinase 8 Contributes to the Suppression of Host Immune Responses. 2019 American Society for Microbiology South Central Branch Meeting, University of Mississippi, Oxford Mississippi, USA
- 11/2/2019 **William K. Songock**, Mathew L. Scott, BrittanyL.Woodby, Joseph Ulincy, Gaurav Raikhy, Wayne Orr, and Jason M. Bodily. Human papillomavirus type 16 E5 inhibits interferon signaling and supports episomal viral maintenance. 2019 American Society for Microbiology South Central Branch Meeting, University of Mississippi, Oxford Mississippi, USA
- 07/10/2019 Sadie Rice, **Songock WK**, Bodily JM. Interaction Between the Human Papillomavirus Oncoprotein E7 and Host Transcriptional Regulator Cyclin Dependent Kinase 8 contributes to Viral Evasion of Host Immune Responses. DNA Tumor virus meeting 2019, Trieste, Italy
- 07/24/2017 **Songock WK** and Bodily JM. Transcriptional elongation mediates human papillomavirus type 16 late promoter activation Article *in* Cancer Research 77(13 Supplement): Abstract 5338 July 2017 DOI: 10.1158/1538-7445.AM2017-5338.
- 07/24/2017 Joseph T. Guidy, **Songock WK**, Xiaohui Ma, and Rona Scott. Reduced Epstein-Barr virus replication in human papillomavirus-immortalized keratinocyte organotypic raft culture Article *in* Cancer Research 77(13 Supplement): Abstract 4794.
- 07/17/2017 Brittany Woodby, **Songock WK**, Bodily JM. Regulation of interferon Kappa transforming growth factor Beta in human papillomavirus (HPV) 16 infection. Molecular Biology of DNA Tumor Viruses Conference, Birmingham, UK.
- 04/04/2017 **Songock WK** and Bodily JM. Regulation of the human papillomavirus type 16 late promoter by transcriptional elongation. American Association for Cancer Research Conference, Washington, DC, USA.
- 04/05/2017 Joseph T. Guidy, **Songock WK**, Xiaohui Ma, and Rona Scott. Reduced Epstein-Barr virus replication in human papillomavirus-immortalized keratinocyte organotypic raft culture. American Association for Cancer Research Conference, Washington, DC, USA.
- 07/18/2016 **Songock WK** and Bodily JM. Regulation of the human papillomavirus type 16 late promoter by transcriptional elongation. Molecular Biology of DNA Tumor Viruses Conference, Montreal, Quebec, Canada, WI.
- 07/22/2016 Brittany Woodby, **Songock WK** and Bodily JM. Regulation of interferon-kappa expression by transforming growth factor-beta in keratinocytes containing human papillomavirus type16. Molecular Biology of DNA Tumor Viruses Conference, Montreal, Quebec, Canada.
- 07/23/2014 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. Molecular Biology of DNA Tumor Viruses Conference, University of Wisconsin, Madison, WI.
- 07/22/2013 **Songock WK**, Hennigan C, Seong-man Kim, Rodriguez C, Bodily JM. Interaction between HPV16 E7 and P-TEFb. Molecular Biology of DNA Tumor Viruses Conference, Birmingham, UK.

**11 Publications: Copyrighted abstract booklets published at the following Regional Scientific meetings**

- 04/26/2019 Sadie Rice, **Songock WK**, Bodily JM. Interaction Between the Human Papillomavirus Oncoprotein E7 and Host Transcriptional Regulator Cyclin Dependent Kinase 8 contributes to Viral Evasion of Host Immune Responses. 2019 Graduate Student Research Day, Louisiana State University Health Sciences Center, Shreveport, LA.
- 12/05/2018 Sadie Rice, **Songock WK**, Bodily JM. Regulation of Host Gene Expression by Human Papillomavirus Oncoprotein E7, Center for Molecular and Tumor Virology Colloquium Louisiana State University Health Sciences Center, Shreveport, LA.
- 09/02/2018 Sadie Rice, **Songock WK**, Gaurav Raikhy, Phillip C.S.R. Kilgore, Urska Cvek Bodily JM. Regulation of Host Gene Expression by Human Papillomavirus Oncoprotein E7, American Society for Microbiology - South Central Branch, Jackson Mississippi
- 10/29/2017 **Songock WK**, Scott LM, Bodily JM. Regulation of HPV 16 late promoter by transcriptional elongation. 2016 Annual Meeting South Central Branch of the American Society for Microbiology, University of Southern Mississippi, Hattiesburg, MI
- 05/06/2016 **Songock WK** and Bodily JM. Regulation of HPV16 late promoter by transcriptional elongation. 2016 Graduate Student Research Day, Louisiana State University Health Sciences Center, Shreveport, LA.

- 09/19/2015 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. The regulation of cellular and viral gene expression by HPV16 E7. 2015 Annual Meeting South Central Branch of the American Society for Microbiology, University of Southern Mississippi, Hattiesburg, MI
- 08/18/2015 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. Interaction of the Mediator complex with HPV16 E7. 2015 Fall Graduate Student Research Day, Louisiana State University Health Sciences Center, Shreveport, LA.
- 05/08/2015 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. Interaction of the Mediator complex with HPV16 E7. 19<sup>th</sup> Annual Ray A. Barlow Scientific Symposium, Louisiana State University Health Sciences Center, Shreveport, LA.
- 05/01/2015 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. Interaction of the Mediator complex with HPV16 E7. 2015 Graduate Student Research Day, Louisiana State University Health Sciences Center, Shreveport, LA.
- 05/16/2014 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 18<sup>th</sup> Annual Ray A. Barlow Scientific Symposium, Louisiana State University Health Sciences Center, Shreveport, LA.
- 05/02/2014 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 2014 Graduate Student Research Day, Louisiana State University Health Sciences Center, Shreveport, LA.

### **8 Publications: Copyrighted abstract booklets published at the following Local scientific meeting conferences**

- 12/02/2015 Woodby B, Scott M, **Songock WK**, Bodily JM. Regulation of TGF-beta by HPV16 E7 and its role in tumor-stromal interactions. The 10<sup>th</sup> annual Virology Colloquium, Louisiana State University Health Sciences Center, Shreveport, LA.
- 11/18/2015 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. The regulation of cellular and viral gene expression by HPV16 E7. 2015 Fall Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA.
- 11/11/2014 **Songock WK**, Seong-man Kim, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 2014 Fall Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA
- 05/21/2014 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 2013 Spring Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA.
- 06/05/2013 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 2013 Spring Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA.
- 05/10/2013 **Songock WK**, Hennigan C, Rodriguez C, Bodily JM. The roles of HPV16 E7 in p53-mediated transcription regulation. 17<sup>th</sup> Annual Ray A. Barlow Scientific Symposium, Louisiana State University Health Sciences Center, Shreveport, LA.
- 09/12/2012 **Songock WK**, The role of foreskin mucosa in HIV-1 pathogenesis. 2012 Fall Library Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA.
- 06/06/2012 **Songock WK**, Inflammatory immune response in celiac disease. 2012 Spring Library Seminar Series, Louisiana State University Health Sciences Center, Shreveport, LA.

### **Volunteer Experience**

- 12/15/2016 Held a plush toy microbe fundraiser with the assistance of Giantmicrobes, Inc. Donated 67 toys to Shriners Children's Hospital and raised \$545.00 for the Partners in Wellness Program
- 7/5/2019 Organized an event to raise funds for church and school building in Kenya. Raised a total of \$20,000.00
- 10/31/2015 Participated in the Great Pumpkin Run to raise money for the Feist-Weiller Cancer Center
- 03/28/2015 Participated in the Heart of Gold Run, the event was organized by LSU Health Shreveport Medical School's student government. Funds from the event were used to fund for synovial sarcoma research set up in honor of Liza Haynie Heaton
- 12/10/2014 Science fair judge, St. Mark's Elementary Cathedral School, Shreveport, LA.
- 12/11/2013 Science fair judge, St. Mark's Elementary Cathedral School, Shreveport, LA

### **Athletic Achievements**

- 8/26/2006-05/14/2011 NCAA Full-Ride Athletic Scholarship, awarded \$30,000 annually from fall of 2006 to spring of 2011, Middle Tennessee State University, Murfreesboro, TN
- 5/23/2011-present Professional running- prizes and awards valued at \$5,000.

10/30/2010	All-Conference Honors, Sunbelt cross country Championship, Western Kentucky University, Bowling Green KY.
10/30/2010	All-Conference Honors, Sunbelt cross country Championship, Western Kentucky University, Bowling Green KY.
05/06/2010	First place 10,000 meters, runner-up 5000 meters and fourth in 1500 meters, Sunbelt outdoor conference Championship, Middle Tennessee State University, Murfreesboro, TN.
03/01/2009	Runner-up in 5000 meters and third in 3000 meters. Sunbelt indoor conference Championship, Arkansas State University, Jonesboro, ARK.
05/11/2008	First place 5000 meters and runner-up in 10,000 meters, Sunbelt outdoor conference Championship, University of North Texas, Denton, TX.
10/27/2007	All-conference Honors, Sunbelt cross country Championship, Western Kentucky University, Bowling Green KY.
10/28/2006	Freshman of the year award, Sunbelt cross country Championship, University of Little Rock ARK. October 28 <sup>th</sup> , 2006.
10/28/2006	All-Conference Honors, Sunbelt cross country Championship, University of Little Rock ARK, October 28 <sup>th</sup> , 2006

### **Leadership Experience**

2019- present	Co-Chair of Research and Innovation Committee at Kenyatta University
2018- 2019	Assistant professor of Biology at Centenary College of Louisiana, Shreveport LA
2019 – 2019	Served as member of Faculty Development committee at Centenary College of Louisiana, Shreveport, LA
2015-2017	Microbiology & Immunology graduate student council representative Louisiana State University Health Sciences Center, Shreveport, LA
2015-2016	Graduate studies honor council member. Louisiana State University Health Science Center, Shreveport, LA
2010-2011	Residential assistant, Middle Tennessee State University, Housing and Residential Life Department, Murfreesboro, TN
2008-2009	Student athlete advisory council representatives, Middle Tennessee State University Athletics Department, Murfreesboro, TN
2007-2009	Cross country team captain, Middle Tennessee State University, Athletics Department of, Murfreesboro, TN
2007-2008	Residential advisor, Middle Tennessee State University, Housing and Residential Life Department, Murfreesboro, TN

### **Graduate Coursework**

- A. Basic Biochemistry: Molecular and Cellular Biology I
- B. Basic Biochemistry: Molecular and Cellular Biology II
- C. Methods in Biomedical Sciences: Biochemical and Molecular Methods
- D. Methods in Biomedical Sciences: Recombinant DNA and Cell Biology
- E. Bacteriology and Pathogenesis of Infectious Diseases I
- F. Pathogenesis of Infectious Diseases II
- G. Immunology
- H. Genetics
- I. Cell Biology
- J. Molecular Signaling
- K. Gene Expression
- L. General and Molecular Virology
- M. Seminar Presentation
- N. Philosophical and Ethical issues in Science
- O. Inflammation, Immunity, and Cancer
- P. Advanced Virology and Molecular Biology
- Q. Weekly Departmental Seminar
- R. Grant Writing: R21 and RO1 formats

### **Professional Organization Membership**

- 01/10/2017-present - American Association for Cancer Research
- 01/16/2016-present - International Papillomavirus Society
- 08/16/2016-present - American Society for Virology
- 02/17/2010-present - Tennessee Louis Stokes Alliance for Minority Participation
- 03/16/2008-present - Phi Kappa Phi
- 02/09/2009-present - Chi Alpha Sigma National Collegiate Athletic Honor Society

## REFERENCES

### 1. Jason M. Bodily, PhD

LSUHSC Shreveport  
Assistant Professor  
Department of Microbiology and Immunology  
1501 Kings Hwy P O BOX 33932  
Shreveport, LA, 71104  
Phone: 3186754890  
E-mail: [jbodil@lsuhsc.edu](mailto:jbodil@lsuhsc.edu)

### 2. Dennis J. O'Callaghan, PhD

LSUHSC Shreveport Boyd Professor & Head  
Willis-Knighton Chair of Molecular Biology  
Department of Microbiology and Immunology  
1501 Kings Hwy Microbiology P O BOX 33932  
Shreveport, LA, 71103  
Phone: 318675754  
E-mail: [docall@lsuhsc.edu](mailto:docall@lsuhsc.edu)

### 3. Ikuo Tsunoda, MD, PhD

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