

## WOOLVERTON PUBLICATIONS

### PEER-REVIEWED DISCIPLINARY RESEARCH PUBLICATIONS

- Hughes JW, A. Vander Horst, GC Gibson, KA Cleveland, C Wawrosch, C Hunt, M Granot, **CJ Woolverton**, COVID-19. Pandemic Exacerbates Psychological Distress of College Students. *American Journal of Public Health*, submitted May 20, 2020.
- **Woolverton CJ**, C Peeps, J Seidel, A Eng, 2020. Use of Silica Beads to Dry N95 Masks during Storage. *Applied Biosafety*, accepted for publication June 01, 2020,
- **Woolverton CJ**, RE Ferdig, A Snyder (graduate student), J Reed (graduate student), T Dodson (graduate student), S Thomas, 2020. Repurposing Surgical Wrap Textiles for Use as Protective Masks During Pandemic Response. *Applied Biosafety*, online ahead of print May 7, 2020, <https://doi.org/10.1177/1535676020925958>.
- Shook E., A. Curtis, J. Curtis, G. Gibson, A. Vander horst, V. Little, and **C.J. Woolverton**, 2019. Risk Perception and Behavioral Response to Potential Ebola Exposure: A College Campus in Northeast Ohio, USA. *Intl J Environ Res Public Health*, 16(5), 831.
- Fiester, S.E. (graduate student), S.F. Evangelista (undergraduate student), B.A. Arivett (graduate student), D.J. Adams (graduate student), R.E. Redfern (graduate student) and **C.J. Woolverton**. The Role of the Liquid Crystalline State in the Bundling of *Salmonella enterica* serovar Typhimurium Flagella. *Liquid Crystals*, 41 (9): 1277-1285.
- Shilling, M. P. (graduate student), L. Matt, E. Rubin, M.P. Visitacion, N.A. Haller, S. Gray, **C.J. Woolverton**, 2013. Antimicrobial Effects of Virgin Coconut Oil and its Medium Chain Fatty Acids on *Clostridium difficile*: A susceptibility study. *Journal of Medicinal Food* 16 (11): 1-7.
- Ferrell, J.R. (graduate student), A.S. Galov (graduate student), V.A. Gostev, B.A. Banks, S.P. Weeks, J.A. Fulton, and **C.J. Woolverton**, 2013. Pulse-Based Nonthermal Plasma: Characterization, Properties, and Applications. *Journal of Biotechnology and Biomaterials*, 3: 155. <http://dx.doi.org/10.4172/2155-952X.1000155>.
- Ferrell, J.R. (graduate student), and **C.J. Woolverton**, 2013. Pulse-Based NTP Disrupts the Structural Characteristics of Bacterial Biofilms. *Biofouling*, 89: 585-599.
- Ghosh, S. (graduate student), M. Moitra (graduate student), **C.J. Woolverton**, and L.G. Leff, 2012. Effects of remediation on the bacterial community of an acid mine impacted stream. *Can. J. Microbiol.* 58: 1–10.
- Fiester, S. (graduate student), S. Helfinstine, J. Redfearn (graduate student), R. Uribe and **C. J. Woolverton**, 2012. Electron beam irradiation dose-dependently damages the *Bacillus* spore coat and spore membrane. *International Journal of Microbiology*, 01/2012 2012:579593; <http://dx.doi.org/10.1155/2012/579593>.
- Fiester, S. (graduate student), A. Jáklí, and **C. J. Woolverton**, 2011. Optical Properties of a Self-Assembling Viral Coat Protein. *Liquid Crystals*, 38: 1153-1157.
- Blegen, M (graduate student), C. Cheatham (graduate student), N. Caine-Bish (graduate student), **C.J. Woolverton**, J. Marcinkiewicz, E. Glickman, 2008. The Immunological and Metabolic Responses to Exercise of Varying Intensities in Normoxic and Hypoxic Environments. *J Strength Cond. Res.* 22(5):1638-1644.
- Helfinstine, S.L. (graduate student), O.D. Lavrentovich and **C.J. Woolverton**, 2006. Lyotropic Chromonic Liquid Crystals as Real-time Detector of Microbial Immune Complexes. *Letters Applied Microbiology* 43:27-32.
- Shiyonovskii, S.V., O. D. Lavrentovich, T. Schneider (graduate student), T. Ishikawa, I.I. Smalyukh, **C. J. Woolverton**, G. D. Niehaus, and K. J. Doane, 2005. Lyotropic Chromonic Liquid Crystals for Biological Sensing Applications. *Mol. Cryst. Liq. Cryst.* 434:259-270.

- Helfinstine, S. (graduate student), C. Vargas-Aburto, Roberto M. Uribe and **C. J. Woolverton**, 2005. Inactivation of *Bacillus* Endospores in Envelopes using Electron Beam Irradiation. *Applied and Environmental Microbiology* **71**, 7029-7032.
- **Woolverton, C.J.**, E. Gustely (undergraduate student), L. Li (graduate student) and O.D. Lavrentovich, 2005. Liquid Crystal Effects on Bacterial Viability. *Liquid Crystals* **32**, 417–423.
- Shiyanovskii, S.V., T. Schneider (graduate student), I.I. Smalyukh, T. Ishikawa, G. D. Niehaus, K. J. Doane, **C. J. Woolverton**, and O. D. Lavrentovich, 2005. Director Distortions and Light Transmittance around Growing Immune Complexes in a Lyotropic Chromonic Liquid Crystal: A Real-time Microbe Detector. *Phys. Rev. E.*, **71**, 020702.
- Bansal, A.K. and **C.J. Woolverton**, 2003. Applying Automatically Derived Gene-groups to Automatically Predict and Refine Metabolic Pathways. *IEEE Transactions on Knowledge and Data Engineering*. **15**: 883-894.
- **Woolverton, C.J.**, J. A. Fulton, S. Salstrom, John Hayslip (undergraduate student), Nairmeen Awad Haller, M. Wildroutd, M. MacPhee, 2001. Tetracycline Delivery from Fibrin Controls Peritoneal Infection without Measurable Systemic Antibiotic. *Journal of Antimicrobial Chemotherapy*, **48**:861-867.
- **Woolverton, C.J.**, K. Huebert (undergraduate student), B. Burkhart (undergraduate student) and M. MacPhee, 1999. Subverting Bacterial Resistance using High Dose, Low Solubility Antibiotics in Fibrin. *Infection* **27**:28-33.
- Miekka, S.I., T. Jameson, M. Singh, **C. Woolverton**, Il-M. Lin, R. Krajcik, M. MacPhee and W. N. Drohan, 1998. Novel Delivery Systems for Coagulation Proteins. *Hemophilia*. **4**:436-442.
- **Woolverton C.J.**, M. Singh, R. Brady, W. Drohan and M. MacPhee, 1995. Antibiotic Release from Fibrin Sealant. *Controlled Release of Bioactive Materials* **22**:750-751.
- **Woolverton, C.J.**, C.L. Bryson (undergraduate student), P.A Redshaw and A. Paquet, Jr. 1994. Immunomodulating Activities of Sodium-Dodecyl-Sulfate Extracted Antigens from *Actinobacillus actinomycetemcomitans* Serotype b. *Microbial Ecology in Health and Disease*, **7**:275-282.
- **Woolverton, C.J.**, L.C. Holt and R.B. Sartor. 1994. Oral Peptidoglycan-polysaccharide Stimulates Systemic Immunocompetency in Germ Free Mice. *Microbial Ecology in Health and Disease*, **7**:183-190.
- **Woolverton, C.J.**, Van B. Haywood, and Harold O. Heymann. 1993. Toxicity of Two Carbamide Peroxide Products used in Night Guard Vital Bleaching. *American Journal of Dentistry*, **6**:310-314.
- **Woolverton, C.J.** Lisa C. Holt, Deborah Mitchell, and R.B. Sartor. 1992. Isolation and Characterization of Rat Intestinal Lamina Propria cells: Consequences of Bacterial Colonization. *Veterinary Immunology and Immunopathology* **34**:127-138.
- **Woolverton, C.J.**, J.J. White, and R.B. Sartor. 1989. Intestinal Vascular Permeability Induced by Intravenous Peptidoglycan-polysaccharide Polymers. *Agents and Actions* **26**:301-310.
- Fotos, P.G., **C.J. Woolverton**, M.M. Mermigas, and M.J. Mokas. 1988. Effect of Eugenol on Prostaglandin E Levels in Serum and PMNs. *Ann. Dentistry* **47**:19-22.
- Fotos, P.G., **C.J. Woolverton**, K. VanDyke, and R.L. Powell. 1987. Effects of Eugenol on Polymorphonuclear Cell Migration and Chemiluminescence. *Journal of Dental Research* **66**:774-777.
- **Woolverton, C.J.**, P.G. Fotos, M.J. Mokas, and M. Mermigus. 1986. Evaluation of Eugenol for Mutagenicity by the Micronucleus Test. *Journal of Oral Pathology* **15**:450-453.
- **Woolverton, C.J.**, R.W. Veltri, and I.S. Snyder. 1986. Stimulation of Human PMNs *In vitro* by a Succinimide Molecular Complex of Methylfurylbutyrolactone. *Journal of Biological Response Modifiers* **5**:527-538.

- Veltri, R.W., G. Fodor, C-M. Liu, **C.J. Woolverton**, and M.W. Baseler. 1986. A New Class of Synthetic Biological Response Modifiers: The Methylfurylbutyrolactones (Nafocare B). *Journal of Biological Response Modifiers* **5**:444-461.
- **Woolverton, C.J.** and L.J. Turoczi. 1983. Studies in Mutagenesis and Antimutagenesis. II. A Modified Micronucleus Test as a Genotoxic Screen Using Vitamin C. *Proceedings of the Pennsylvania Academy of Science* **57**:185-189.

#### PEER-REVIEWED PEDAGOGY PUBLICATIONS

- Leff, L.G., D.L. Bade, J. Scaffidi, C.E. Williamson and **C.J. Woolverton**, 2013. Environmental Aquatic Resource Sensing: Basic Sciences, Business Education, and Outreach. *J Contemporary Water Res Educ*. Issue**150**: 63-71.
- Fiester, S. (graduate student), S. Helfinstine, T. Meilander and **C.J. Woolverton**, 2012. Administering needs-assessed bioterrorism curricula to public health professionals using active learning strategies. *Appl Biosafety*, **17**: 181-187.
- **Woolverton, C.J.**, 2012. Advancing the Vision: New PubMed Indexing, Creative Commons Licensing, and December Highlights. *Journal of Microbiology and Biology Education* **13**:124.
- **Woolverton, C.J.**, 2010. The Dual-use Dilemma in Life Science Research. *Journal of Microbiology and Biology Education* **11**:66-67.
- Fiester, S. (graduate student), J. Redfearn (graduate student), S. Helfinstine, T. Meilander and **C.J. Woolverton**, 2010. Lab Safety and Bioterrorism Readiness Curricula using Active Learning and Hands-on Strategies as Continuing Education for Laboratorians. *Journal of Microbiology and Biology Education* **11**:14-20.
- Meilander, T. and **C.J. Woolverton**, 2008. Engaging Teachers and Students in Microbiology Education. *Focus on Microbiology Education* **14**(3):2-3.
- Gilbert, A., T. Meilander, S. Helfinstine, and **C.J. Woolverton**, 2008. What Makes Flatulence. Microbial Discovery Activity, American Society for Microbiology, [www.asm.org/Education/index.asp?bid=35292](http://www.asm.org/Education/index.asp?bid=35292).
- **Woolverton, C.J.** and L. N. Woolverton (high school student), 2006. Are Three Sheets Enough? Using Toilet Paper to Teach Science and Mathematics, *American Biology Teacher* **68**:395 (online at <http://www.nabt.org/sub/pdf/068-07-0018.pdf>).
- **Woolverton, C. J.**, H. Hawkins, R. Anderson, E. DeAngelo, M. Jones, W. Matthai, B. Poole, J. Richardson, V. Schirone, 1999. Antibiotic Susceptibility of *E. coli* Isolates. International Curriculum Resources Collection. American Society for Microbiology. Peer reviewed Internet publication, <http://www.asmtusa.org/edusrc/library/FactSheet.asp?SubmissionID=440>.
- **Woolverton, C.J.**, 1999. Use of Veterinary Records to Teach Laboratory Thinking Skills in Biology. *American Biology Teacher* **61**:444-447.
- **Woolverton, C.J.** and J. Liliestedt (undergraduate student), 1999. Identification and Quantitation of Bacteria in Emergency Eyewash Bottles used in Science Laboratories. *American Biology Teacher* **61**:372-375.
- **Woolverton, C.J.**, 1998. Teaching Microbiology with a Little Help from the Web. *Focus on Microbiology Education* **5**:1-3.

#### PEER-REVIEWED CONFERENCE PROCEEDINGS

- Bartolo, L., Melton, A., Strah, M. (graduate student), Lowe, C. (graduate student), Feng L. (graduate student) and **Woolverton, C.J.**, 2002. An Electronic Scientific Notebook: Metadata and Database Design for Multidisciplinary Scientific Laboratory Data. *Proceedings of ICEIS 2002, 4th International Conference on Enterprise Information Systems*. ICEIS Press, Portugal, ISBN: 972-98050-6-7.
- **Woolverton, C.J.**, S.T. Lopino, J.A. Fulton and W.J. Landis, 2002. *Mimicking the Natural Tissue Environment*, In: *Tissue Engineering and Biodegradable Equivalents: Scientific and*

*Clinical Applications*, (K-U, Lewandrowski, D.L. Wise, D.J. Trantolo, J.D. Gresser, M.J. Yaszemshi and D.E. Altobelli. Eds.) Marcel Dekker, New York (invited chapter).

- Bartolo, L., Melton, A., Strah, M. (graduate student), Lowe, C. (graduate student), Feng, L. (graduate student) and **Woolverton, C.J.**, 2002, An Electronic Scientific Notebook: Metadata and Database Design for Multi-disciplinary Scientific Laboratory Data. *Proceedings of the 6<sup>th</sup> International Conference on Current Research Information Systems*, University of Kassel, Kassel, Germany.
- **Woolverton, C.J.**, J.J. White, Jr., E.J. Chapman, and R.B. Sartor. 1988. Eicosanoid Regulation of the Acute Vascular Phase of Inflammation. In: *Inflammatory Bowel Disease: Current Status and Future Approach*, Elsevier, Amsterdam, pp 309-316.
- **Woolverton, C.J.**, E.J. Chapman, P.B. Carter, and R.B. Sartor. 1988. Systemic Immunoregulation in Germ Free Mice Fed Bacterial Cell Wall Polymers. In: *Inflammatory Bowel Disease: Current Status and Future Approach*, Elsevier, Amsterdam, pp 207-212.

#### INVITED / PEER-REVIEWED BOOK CHAPTERS

- **Woolverton, C.J.** and D. Lehman, 2018. *Agents of Bioterror and Forensic Microbiology*, In: Textbook of Diagnostic Microbiology 6<sup>th</sup> Ed. (Mahon and Lehman, Eds.) Elsevier, New York. 978-0-323-61317-0
- **Woolverton, C.J.** and Abbey K. Woolverton, 2017. *Biological Safety and Security in Teaching Laboratories*, In: Biological Safety: Principles and Practices, 5<sup>th</sup> Ed. (Wooley, D and K Byers, Eds.) ASM Press, Washington, DC. ISBN 978-1-55581-620-9
- **Woolverton, C.J.**, S.T. Lopino, J.A. Fulton and W.J. Landis, 2002. *Mimicking the Natural Tissue Environment*, In: Tissue Engineering and Biodegradable Equivalents: Scientific and Clinical Applications, (K-U, Lewandrowski, D.L. Wise, D.J. Trantolo, J.D. Gresser, M.J. Yaszemshi and D.E. Altobelli. Eds.) Marcel Dekker, New York.

#### PEER-REVIEWED BOOKS (DEVELOPED FOR UNDERGRADUATE EDUCATION)

- Wiley, Sherwood, and **Woolverton**, 2017. *Prescott's Microbiology* 10e (Primary responsibility: 100% of Chapters 8, 9, and 33-40; 20% of 16 and 50% of 32), McGraw-Hill Higher Ed Publishers, NY. ISBN 978-1-259-28159-4
- Wiley, Sherwood, and **Woolverton**, 2014. *Prescott's Microbiology* 9e (Primary responsibility: Chapters 8, 9, 50% of 32, 33-40), McGraw-Hill Higher Ed Publishers, NY. ISBN 978-0-07-340240-6.
- Wiley, Sherwood, and **Woolverton**, 2011. *Prescott's Microbiology* 8e (Primary responsibility: Chapters 8, 30-39), McGraw-Hill Higher Ed Publishers, NY. ISBN 978-0-07-337526-7.
- Wiley, Sherwood, and **Woolverton**, 2009. *Prescott's Principals of Microbiology*, McGraw-Hill Higher Ed Publishers, NY. ISBN 978-0-07-337523-6.
- Wiley, Sherwood, and **Woolverton**, 2008. *Prescott Harley and Klein's Microbiology 7e* (Primary responsibility: Chapters 30-39), McGraw-Hill Higher Ed Publishers, NY. 978-0-07-335450-7
- **Woolverton, C.J.**, 2004. *Experimental Microbiology*. 3<sup>rd</sup> Edition, Morton Publishing Co., Englewood, CO. ISBN: 0-89582-541-4.
- **Woolverton, C.J.**, 1999. *Experimental Microbiology*. 2<sup>nd</sup> Edition, Morton Publishing Co., Englewood, CO. ISBN: 0-89582-541-4.
- **Woolverton, C.J.**, 1997. *Experimental Microbiology*. Burgess Publishing, Edina, Minnesota. ISBN: 0-8087-9591-0.

#### TECHNICAL MANUALS AND REPORTS

- Pandemic Response Plan (co-authored with Shandra DeVoe, Julie Volcheck, and Lisa Dannemiller), Kent State University, revised May 21, 2020.

- University Health Services Communicable Disease Plan, Kent State University, October 2019.
- Quality Improvement Plan for the Clinical Peer Review Process, University Health Services, Kent State University, October 2019.
- Faculty Handbook (co-author), College of Public Health, Kent State University, 2020.
- University Health Services Emergency Response Plan, Kent State University, April 2019.
- University Health Services Exposure Control Plan, Kent State University, April 2019.

#### **INVITED AND OP ED PUBLICATIONS**

- Woolverton, C.J., Review of *Virulence Mechanisms of Bacterial Pathogens*, 5<sup>th</sup> Edition. Editors: Indira T. Kudwa, Nancy A. Cornick, Paul J. Plummer, Qijing Zhang, Tracy Nicholson and John P. Bannantine. Washington, DC: ASM Press, 2016. ISBN: 9781555819279, 871 pp.; In *Applied Biosafety*: **22** (2), 79-80. June 1, 2017 (<https://doi.org/10.1177/1535676017711689>).
- Woolverton, C.J., 2003. Liquid Crystals: Find Microbes at Lightning Speeds. Medical Design News, Penton Press, published on-line at <http://www.medicaldesign.com/articles/ID/6673>.
- Woolverton, C.J., 2003. Highlights of the ASM BioDefense Countermeasures Meeting. Focus on Microbiology Education Newsletter, a publication of the American Society for Microbiology, ISSN 1542-9210.
- Woolverton, C.J. and M. Johnson, 2001. Eighth ASM Undergraduate Microbiology Education Conference a Success. Focus on Microbiology Education Newsletter, a publication of the American Society for Microbiology, ISSN 1542-9210.
- Woolverton, C.J., 1991. Soviet Health Care: Enigma or Oxymoron? AC Knowledge, The Alumni Magazine of Austin College, Sherman, TX.