

DENISE BURNSIDE, Ph.D.

dburnside@srcconsultants.com

Scientific & Regulatory Consultants, Inc. provides a full range of regulatory services for the antimicrobial industry. Our consultants' insight provides scientifically-sound, cost-effective, and timely solutions to routine and complex issues facing our clients. Our collective knowledge base includes experience in industry, laboratories and with government entities. For more information about Scientific & Regulatory Consultants, Inc. visit our website at www.srcconsultants.com

PROFESSIONAL EXPERIENCE

Scientific & Regulatory Consultants, Inc., Columbia City, IN 2016 - Present

Consulting Associate (2018 – present); promotion

Consulting Specialist (2016 – 2017)

- Assist with efficacy study design and management including the development of protocols, testing strategy, troubleshooting, and final report review
- Technical writing including label development, sales literature, and journal articles
- Prepare documents for EPA registration and amendment submissions
- Complete registrations and amendments for California Dept. of Pesticide Regulation (DPR)
- Conduct competitive surveillance research
- Prepare monthly 6(a)(2) reports

Northwestern University, Chicago, IL 2008 - 2015

Graduate Student (Microbiology)

- Developed and tested scientific hypotheses regarding siderophore-mediated iron acquisition in *Legionella pneumophila*
- Developed and introduced new laboratory protocols
- Collected, analyzed, and interpreted data
- Published research findings in peer-reviewed journals
- Presented research findings at professional meetings
- Handled Biological Safety Level 2 organisms and ensured compliance to laboratory safety protocols
- Utilized microbiology and molecular biology techniques
- Mentored and trained new laboratory members
- Teaching assistant for graduate-level molecular biology and genetics course

Indiana University-Purdue University Fort Wayne, Fort Wayne, IN 2004 - 2008

Research Technician (Virology) (2007-2008)

- Designed experiments to test hypotheses regarding interactions among Varicella-zoster virus encapsidation proteins
- Employed virology, molecular biology and biochemistry techniques

- Collected, analyzed, and interpreted data
- Presented research findings at professional meetings
- Published research findings in peer-reviewed journals

Student Research Assistant (2004-2007)

- Developed and tested scientific hypotheses
- Collected, analyzed, and interpreted data
- Prepared written grants and fellowships

EDUCATION

Ph.D. in Microbiology, Northwestern University, Chicago, IL; 2015

B.S. in Biology, Indiana University-Purdue University Fort Wayne, Fort Wayne, IN; 2007

A.S. in Chemical Methods, Indiana University-Purdue University Fort Wayne, Fort Wayne, IN; 2007

PROFESSIONAL AFFILIATIONS & CERTIFICATIONS

American Society of Testing and Materials (ASTM)

American Society of Microbiology (ASM)

CORPORATE PROFESSIONAL AFFILIATIONS

American Chemistry Council Biocide Panel

British Association of Chemical Specialties (BACS)

Household & Commercial Products Association (HCPA) (Formerly CSPA)

International Sanitary Supply Association (ISSA)

Personal Care Products Council (PCPC)

PROFESSIONAL DEVELOPMENT

U.S. Environmental Protection Agency (EPA)

Introduction to Down-the-Drain Assessment for Antimicrobial Pesticides; 10/16

Antimicrobial Data Requirements 40 CFR Part 158, Subpart W:

Introduction and Overview; 07/16

Mammalian Toxicology Data Requirements for Antimicrobial Pesticides; 07/16

Environmental Fate & Transport; 08/16

Antimicrobials Used in Cooling Water Systems; 08/16

Pesticide Label Review Training (Certified 04/05/16)

U.S. Food and Drug Administration (FDA)

Dietary Supplements: How to Deal with New Criminal, Civil Enforcements; 05/17

How to Conduct Effective Quality Audits; 04/17

CDER Microbiology Issues: A Deeper Dive; 03/17

Medical Device Reporting; 01/17

American Chemistry Council

Biocides Panel Legionella Work Group member, 2016 - Present

American Society for Testing & Materials (ASTM)

ASTM E35.15 Fall Meetings; 10/17

ASTM E35.15 Spring Meeting; 04/17

Citrix ShareFile

Everything You Need to Stay Connected from the Cloud; 04/17

Compliance4All

Excel Spreadsheets – Step by Step Instructions for Compliance; 05/17

21 CFR Part 11 – Compliance for Electronic Records and Signatures; 04/17

FDA News

Writing Effective SOPs; 04/17

Promotion of Drugs, Devices and Biologics Using Social Media; 02/17

Form 483 and Warning Letter Responses; 12/16

Preparing for an FDA Preapproval Inspection: 11/16

Spreadsheet Validation 2016; Tools and techniques to Meet FDA Requirements

Household & Commercial Products Association (HCPA) (Formerly CSPA)

Discover the New Consumer Product Ingredients Dictionary; 11/17

Mid Year Meeting; 05/17

Annual Meeting; 12/17

Indiana University – Purdue University – Fort Wayne (IPFW)

Professionalism and Etiquette for Business; 10/17

The Building Blocks of Effective Messages; 08/17

International Association for Food Protection

Practical Applications of Microbial Modeling; 11/17

The Jackson Laboratory

Understanding the Landscape of the Skim Microbiome and Potential Applications for Personal Care Products; 06/17

Keller & Heckman

A Practical Primer on Pesticides; 10/16

Scientific & Regulatory Consultants, Inc.

6(a)(2) Training; 07/16

EPA 101: Submission Review, Training, and Overview; 06/16

Society of Quality Assurance (SQA)

Method Validation and ILV (Independent Lab Verification); 12/16

Basic Training: Good Laboratory Practices; 09/16

Waters Corporation

Why is Electronic CDS Data a Major Data Integrity Concern for Regulators?; 04/17

Webber Training

Using Expert Process to Combat *Clostridium Difficile* Infections; 02/17

The Role of Dry Surface Contamination in Healthcare Infection Transmission; 02/17

Antimicrobial Environmental Surfaces in Healthcare Settings – Can They Really Be Beneficial?; 10/16

PUBLICATIONS AND PRESENTATIONS

PUBLICATIONS

Burnside, D. M., Wu, Y., Shafaie, S., Cianciotto, N.P. The *Legionella pneumophila* siderophore legiobactin is a polycarboxylate that is identical in structure to Rhizoferrin. *Infection and Immunity*. 2015 Oct:83(10): 3937-3945.

Portier, E., Zheng, H., Sahr, T., **Burnside, D.M.**, Mallama, C., Buchrieser, C., Cianciotto, N.P., Hechard, Y. IroT/mavN, a new iron-regulated gene involved in *Legionella pneumophila* virulence against amoebae and macrophages. *Environmental Microbiology*. 2014 Aug 20.

Howard, A.J., Sherman, D.M., Visalli, M.A., **Burnside, D.M.**, Visalli, R.J. The Varicella-zoster virus ORF54 gene product encodes the capsid portal protein, pORF54. *Virus Research*. 2012 July: 167(1): 102-105.

Stewart, C.R., **Burnside, D.M.**, Cianciotto, N.P. The surfactant of *Legionella pneumophila* is Secreted in a TolC-dependent manner and is antagonistic of other *Legionella* species. *Journal of Bacteriology*. 2011 Nov: 193(21): 5971-5984.

Chatfield C.H., Mulhern B.J., **Burnside, D.M.** Cianciotto, N.P. *Legionella pneumophila* LbtU acts as a novel, TonB-independent receptor for the legiobactin siderophore. *Journal of Bacteriology*. 2011 Apr: 193(7):1563-1575.

Yip, E. S., **Burnside, D.M.**, Cianciotto, N.P. Cytochrome c4 is required for siderophore expression by *Legionella pneumophila*, whereas cytochromes c1 and c5 promote intracellular infection. *Microbiology*. 2011 Mar: 157: 868-878.

Visalli, R.J., Knepper, J., Goshorn, B., Vanover, K., **Burnside D.M.**, Irvén, K., McGauley, R., Visalli, M. Characterization of the Varicella-zoster virus ORF25 gene product: pORF25 interacts with multiple DNA encapsidation proteins. *Virus Research*. 2009: 144(1-2): 58-64.

Visalli, R.J., **Nicolosi, D.M.**, Irven, K.L., Goshorn, B., Khan, T., Visalli, M.A. The Varicella-zoster virus DNA encapsidation genes: Identification and characterization of the putative terminase subunits. *Virus Research*. 2007: 129(2): 200-211.

Visalli, R.J., **Nicolosi, D.M.**, Irven, K.L., Khan, T., Visalli, M.A.. Characterization of the murine cytomegalovirus m136 gene. *Virus Genes*. 2007: 34(2): 117-126.

PRESENTATIONS

Burnside, D.M., Wu, Yuyang, Cianciotto, N.P. "Legiobactin siderophore produced by *Legionella pneumophila* is structurally similar to rhizoferrin." Midwest Microbial Pathogenesis Conference. Chicago, Illinois. 2014

Burnside, D.M., Cianciotto, N.P. "Evidence for a second *Legionella* siderophore." 113th General Meeting of the American Society for Microbiology. Denver, Colorado. 2013

Burnside, D.M. "The Evolving Role of TolC in *Legionella pneumophila*." Microbiology-Immunology Departmental Seminar Series. Chicago, IL. 2012

Burnside, D.M., Cianciotto, N.P. "A role for TolC in the export of siderophore in *Legionella pneumophila*." Midwest Microbial Pathogenesis Conference. Ann Arbor, Michigan. 2011

Burnside, D.M., Yip, E.S., Cianciotto, N.P. "*Legionella pneumophila* TolC facilitates siderophore production and amoebae infection. Midwest Microbial Pathogenesis Conference. St. Louis, Missouri. 2010

Goshorn, B., Visalli, M.A., **Nicolosi, D.M.**, Khan, T., Byers, M.A., Visalli, R.J. "Identification of the Varicella-zoster virus encapsidation proteins in infected cells." 32th International Herpesvirus Workshop. Asheville, North Carolina. 2007

Nicolosi, D.M., Visalli, R.J. "Identification of protein-protein interactions between the VZV DNA encapsidation proteins ORF30 and ORF45/42." Indiana University-Purdue University Fort Wayne Student Research and Creative Endeavor Symposium. Fort Wayne, Indiana. 2007

Visalli, R.J., **Nicolosi, D.M.**, Goshorn, B., Khan, T., Byers, M.A., Visalli, M.A. "Cloning, sequencing and expression of the seven putative Varicella-zoster virus DNA encapsidation genes." 25th American Society for Virology Meeting. Madison, Wisconsin. 2006

Nicolosi, D.M., Visalli, R.J. "Identification of protein-protein interactions between the VZV DNA encapsidation proteins ORF30 and ORF45/42." Indiana University-Purdue University Fort Wayne Student Research and Creative Endeavor Symposium. Fort Wayne, Indiana. 2006

Nicolosi, D.M., Visalli, M.A., Visalli, R.J. "Characterization of murine cytomegalovirus m136 mutants." 25th American Society for Virology Meeting. Madison, Wisconsin. 2006

Nicolosi, D.M., Visalli, M.A., Irvan, K.L., Visalli, R. J. "Identification of protein-protein interactions between the VZV DNA encapsidation proteins ORF30 and ORF 42/45." 105th General Meeting of the American Society for Microbiology. Atlanta, Georgia. 2005