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EDUCATION

Master of Science in Biological Sciences • Mississippi College
May 2012

Bachelor of Arts in Biology / Bachelor of Music in Piano Performance • Lawrence University
Dec 2008

SCIENCE WRITING and COMMUNICATION EXPERIENCE

Writer and Editor • [ImmunoBites](#)
Feb 2018 - PRESENT

I am on the founding Editorial Board for a new science communication project called ImmunoBites. This website is intended to convey readable, simplified digests of current immunology research and their context in the field. In addition to writing and editing, I manage the website and social media feeds. Full launch of this project is early Summer 2018.

Script Writer • [SciShow](#)
Jun 2016 - PRESENT

I write video scripts for this popular educational YouTube channel hosted by Hank Green. Video content engages the audience on science topics through several formats: “List Shows”, “Quick Questions”, short-form “Doses”, and long-form “Infusions.”

Communications Officer • [Wisconsin Science Museum](#)
Jul 2015 - PRESENT

The Wisconsin Science Museum is a non-profit museum focused on promoting current and historical scientific achievements both locally and state-wide throughout Wisconsin. I manage social media engagement, newsletter writing, blog writing, and website maintenance. I also planned and directed the museum’s first Women in STEM Symposium for local high school girls.

Freelance Writer • [marielmohns.com](#)
Jan 2014 - PRESENT

I write for a variety of web-based outlets, with major clients listed above. Past credits also include: Paper Droids, The Geek Girls International Pen Pal Club, and Collisionarium.

TECHNICAL COMPETENCIES

Computer system: Mac OS preferred, working proficiency with Windows

Apple iWork Suite: Pages, Numbers, Keynote

Microsoft Office Suite: Word, Excel, Powerpoint, Outlook

Adobe CC Suite: Illustrator, Photoshop, InDesign

Web design and management: Wordpress

Social Media: Twitter, Facebook, Instagram, Tumblr, YouTube

Coding & Programming: working knowledge of HTML, CSS, and Python

ACADEMIC RESEARCH EXPERIENCE

Research Specialist • University of Wisconsin - Madison (Laboratory of Dave O'Connor)
Jul 2013 - PRESENT

I perform duties as an immunology specialist with expertise in T cell responses. Currently I manage high-throughput epitope mapping experiments in rhesus macaques immunized against SIV, influenza, M. tuberculosis, and Ebola. Previously, I assisted in the evaluation of Zika virus infection in a rhesus macaque model. Additionally, I spearheaded experiments for autologous adoptive transfer in SIV-infected Mauritian cynomolgus macaques. I contribute to manuscript and grant writing, oral and poster presentations, and manage the laboratory's social media communication.

Research Assistant • Mississippi College (Laboratory of George (Trey) Howell III)
Sep 2011 - Jan 2013

I gained skill in pharmacology/toxicology research methods and investigated the effects of organochlorine compounds (particularly DDE) in cellular metabolic pathways leading to insulin resistance.

Microbiology Laboratory Assistant • Mississippi College (Professor Joseph Graves)
Jan 2012 - May 2012

I prepared laboratory experiments for spring semester Medical Microbiology and Nursing Microbiology courses and assisted students in lab protocol and techniques.

TEACHING EXPERIENCE

Adjunct Faculty - Biology • Hinds Community College (Raymond, MS)
Jan 2013 - May 2013

I taught lecture and laboratory course for non-science majors with an introduction to the basic principles of modern biology including history of scientific thought, basic cell structure and processes, genetics, and evolution.

PUBLICATIONS and PRESENTATIONS

Aliota MT, Dudley DM, Newman CM, Weger-Lucarelli J, Stewart LM, Koenig MR, Breitbach ME, Weiler AM, Semler MR, Barry GL, Zarbock KR, Haj AK, Moriarty RV, **MOHNS MS**, Mohr EL, Venturi V, Schultz-Darken N, Peterson E, Newton W, Schotzko ML, Simmons HA, Mejia A, Hayes JM, Capuano S 3rd, Davenport MP, Friedrich TC, Ebel GD, O'Connor SL, O'Connor DH. "Molecularly barcoded Zika virus libraries to probe in vivo evolutionary dynamics." PLoS Pathog. 2018 Mar 28;14(3):e1006964. doi: 10.1371/journal.ppat.1006964.

MOHNS MS, Graham ME, Eckels J, Gibson K, Dudley DM, Friedrich TC, O'Connor DH. "zika.labkey.com: a real-time solution to open-data sharing." Poster presentation. Science Talk Conference. Portland, OR. March 2018.

Mohr EL, Block LN, Newman CM, Stewart LM, Koenig M, Semler M, Breitbach ME, Teixeira LBC, Zeng X, Weiler AM, Barry GL, Thoong TH, Wiepz GJ, Dudley DM, Simmons HA, Mejia A, Morgan TK, Salamat MS, Kohn S, Antony KM, Aliota MT, **MOHNS MS**, Hayes JM, Schultz-Darken N, Schotzko ML, Peterson E, Capuano S 3rd, Osorio JE, O'Connor SL, Friedrich TC, O'Connor DH...

(publications continued)

...Goloz TG. "Ocular and uteroplacental pathology in a macaque pregnancy with congenital Zika virus infection." PLoS One. 2018 Jan 30;13(1):e0190617. doi: 10.1371/journal.pone.0190617.

Dudley DM, Newman CM, Lalli J, Stewart LM, Koenig MR, Weiler AM, Semler MR, Barry GL, Zarbock KR, **MOHNS MS**, Breitbach ME, Schultz-Darken N, Peterson E, Newton W, Mohr EL, Capuano S 3rd, Osorio JE, O'Connor SL, O'Connor DH, Friedrich TC, Aliota MT. "Infection via mosquito bite alters Zika virus tissue tropism and replication kinetics in rhesus macaques." Nat Communications. 2017 Dec 13;8(1):2096. doi: 10.1038/s41467-017-02222-8.

Bailey AL, Buechler CR, Matson DR, Peterson EJ, Brunner KG, **MOHNS MS**, Breitbach M, Stewart LM, Ericson AJ, Newman CM, Koenig MR, Mohr E, Tan J, Capuano S 3rd, Simmons HA, Yang DT, O'Connor DH. "Pegivirus avoids immune recognition but does not attenuate acute-phase disease in a macaque model of HIV infection." PLoS Pathogens. 2017 Oct 26;13(10):e1006692. doi: 10.1371/journal.ppat.1006692.

Newman CM, Dudley DM, Aliota MT, Weiler AM, Barry GL, **MOHNS MS**, Breitbach ME, Stewart LM, Buechler CR, Graham ME, Post J, Schultz-Darken N, Peterson E, Newton W, Mohr EL, Capuano S 3rd, O'Connor DH, Friedrich TC. "Oropharyngeal mucosal transmission of Zika virus in rhesus macaques." Nature Communications. 2017 August 1; 8(1):169. doi: 10.1038/s41467-017-00246-8.

MOHNS MS, Graham ME, Eckels J, Gibson K, Dudley DM, Friedrich TC, O'Connor DH. "zika.labkey.com: a real-time solution to open-data sharing." Poster presentation. American Society of Virology 36th Annual Meeting. Madison, WI. June 2017.

Nguyen SM, Antony KM, Dudley DM, Kohn S, Simmons HA, Wolfe B, Salamat MS, Teixeira LBC, Wiepaz GJ, Thoong TH, Aliota MT, Weiler AM, Barry GL, Weisgrau KL, Vosler LJ, **MOHNS MS**, Breitbach ME, Stewart LM, Rasheed MN, Newman CM, Graham ME, Wieben OE, Turski PA, Johnson KM, Post J, Hayes JM, Schultz-Darken N, Schotzko ML, Eudailey JA, Permar SR, Rakasz EG, Mohr EL, Capuano S, Tarantal AF, Osorio JE, O'Connor SL, Friedrich TC, O'Connor DH, Goloz TG. "Highly efficient maternal-fetal Zika virus transmission in pregnant rhesus macaques." PLOS Pathogens. 2017 May 25;13(5): e1006378. <https://doi.org/10.1371/journal.ppat.1006378>

Ericson AJ, Lauck M, **MOHNS MS**, DiNapoli SR, Mutschler JP, Greene JM, Weinfurter JT, Lehrer-Brey G, Prall TM, Gieger SM, Buechler CR, Crosno KA, Peterson EJ, Reynolds MR, Wiseman RW, Burwitz BJ, Estes JD, Sacha JB, Friedrich TC, Brenchley JM, O'Connor DH. "Microbial Translocation and Inflammation Occur in Hyperacute Immunodeficiency Virus Infection and Compromise Host Control of Virus Replication." PLoS Pathog. 2016 Dec 7;12(12):e1006048. doi: 10.1371/journal.ppat.1006048.

Aliota MT, Dudley DM, Newman CM, Mohr EL, Gellerup DD, Breitbach ME, Buechler CR, Rasheed MN, **MOHNS MS**, Weiler AM, Barry GL, Weisgrau KL, Eudailey JA, Rakasz EG, Vosler LJ, Post J, Capuano S 3rd, Goloz TG, Permar SR, Osorio JE, Friedrich TC, O'Connor SL, O'Connor DH. "Heterologous Protection against Asian Zika Virus Challenge in Rhesus Macaques." PLoS Negl Trop Dis. 2016 Dec 2;10(12):e0005168. doi: 10.1371/journal.pntd.0005168.

(publications continued)

MOHNS MS. “Zika virus: unravelling the history of an emerging infectious disease.” Oral presentation. Participatory Learning and Teaching Organization / Continuing Education Studies at UW-Madison. Madison, WI. October 2016.

Dudley DM, Aliota MT, Mohr EL, Weiler AM, Lehrer-Brey G, Weisgrau KL, **MOHNS MS**, Breitbart ME, Rasheed MN, Newman CM, Gellerup DD, Moncla LH, Post J, Schultz-Darken N, Schotzko ML, Hayes JM, Eudailey JA, Moody MA, Permar SR, O'Connor SL, Rakasz EG, Simmons HA, Capuano S, Golos TG, Osorio JE, Friedrich TC, O'Connor DH. “A rhesus macaque model of Asian-lineage Zika virus infection.” *Nat Commun.* 2016 Jun 28;7:12204. doi: 10.1038/ncomms12204.

MOHNS MS, Greene JM, Cain BT, Pham NH, Gostick E, Price DA, O'Connor DH. “Expansion of SIV-specific CD8 T cell lines from SIV-naive cynomolgus macaques for adoptive transfer.” Poster presentation. 33rd Annual Symposium on Nonhuman Primate Models for AIDS. Monterey, CA. October 2015.

Bailey AL, Lauck M, **MOHNS M**, Peterson EJ, Beheler K, Brunner KG, Crosno K, Mejia A, Mutschler J, Gehrke M, Greene J, Ericson AJ, Weiler A, Lehrer-Brey G, Friedrich TC, Sibley SD, Kallas EG, Capuano S 3rd, Rogers J, Goldberg TL, Simmons HA, O'Connor DH. “Durable sequence stability and bone marrow tropism in a macaque model of human pegivirus infection.” *Science Translational Medicine.* 2015 Sep 16;7(305):305ra144. doi: 10.1126/scitranslmed.aab3467.

MOHNS MS, Greene JM, Cain BT, Pham NH, Gostick E, Price DA, O'Connor DH. “Expansion of SIV-specific CD8 T cell lines from SIV-naive cynomolgus macaques for adoptive transfer.” *Journal of Virology.* 2015 Oct;89(19):9748-57. doi: 10.1128/JVI.00993-15.

Ericson AJ, Starrett GJ, Greene JM, Lauck M, Raveendran M, Deiros DR, **MOHNS MS**, Vince N, Cain BT, Pham NH, Weinfurter JT, Bailey AL, Budde ML, Wiseman RW, Gibbs R, Muzny D, Friedrich TC, Rogers J, O'Connor DH. “Whole genome sequencing of SIV-infected macaques identifies candidate loci that may contribute to host control of virus replication.” *Genome Biology.* 2014;15(11):478. doi:10.1186/s13059-014-0478-z.

Howell GE, Meek E, Kilic J, **MOHNS M**, Mulligan C, Chambers JE. “Exposure to p,p'-dichlorodiphenyldichloroethylene (DDE) induces fasting hyperglycemia without insulin resistance in male C57BL/6H mice.” *Toxicology.* 2014;320:6-14. doi:10.1016/j.tox.2014.02.004.

MOHNS M. “DDE to Diabetes: The metabolic implications of organochlorine pesticide exposure.” Oral presentation. Mississippi College Graduate Research Forum. Clinton, MS. April 2012.

Kilic J, **MOHNS M**, McPherson K, Kelly J, Howell G. “Exposure to DDE decreases insulin signaling in skeletal muscle myotubules.” Poster presentation. 9th Annual Mississippi College/Tougaloo College Undergraduate Research Symposium. April 2012.

MOHNS M. “DDE to Diabetes: The metabolic implications of organochlorine pesticide exposure.” Oral presentation. Mississippi College Graduate Seminar. Clinton, MS. March 2012.

AWARDS and HONORS

Best Poster Presentation • Non-Human Primate AIDS Meeting 2016 • Hosted by UC - Davis
October 2015

Foman & Nina Musselwhite Prize • 14th Annual Graduate Research Forum • Mississippi College
April 2012

Graduate Dean's List • Mississippi College
2011-2012