

Elizabeth Di Russo Case

Education

Doctor of Philosophy , Biological Sciences, University of California, Irvine	2010
Bachelor of Science , Cell and Molecular Biology, Oklahoma State University	2002

Professional Employment

Assistant Professor , Department of Veterinary Sciences, University of Wyoming	2020
Scientific Director , University of Wyoming Biocontainment Facility	2020
Assistant Research Scientist , Department of Microbial Pathogenesis and Immunology, Texas A&M University Health Science Center	2020
Postdoctoral Research Associate , Department of Microbial Pathogenesis and Immunology, Texas A&M University Health Science Center	2013-2020
Postdoctoral Fellow , Rocky Mountain Laboratories, National Institutes of Health (NIAID)	2010-2013

Awards

Travel Award , American Society for Rickettsiology, for an oral presentation in Milwaukee, WI	2018
Best Oral Presentation by a Postdoctoral Fellow , ASM Texas Branch Meeting, College Station, TX	2017
Intramural Research Training Award , research fellowship at Rocky Mountain Laboratories, NIH	2010
San-Pin Wang Award , best graduate student oral presentation at the CBRS meeting, Little Rock, AR	2009
Lew Wentz Foundation Scholarship , undergraduate research fellowship, Oklahoma State University	2001

Publications

1. Burette, M., Allombert, J., Lambou, K., Maarifi, G., Nisole, S., **Case, E. D.**, Blanchet, F., Hassen-Khodja, C., Cabantous, S., Samuel, J.E., Martinez, E., Bonazzi, M. *Modulation of innate immune signaling by a Coxiella burnetii eukaryotic-like effector protein*. 2020. Proceedings of the National Academy of Sciences. 17 (24): 13708-13718.
2. de Figueiredo, P., Pandey, A., Ding, S. L., Qin, Q. M., Gupta, R., Gomez, G., Lin, F., Feng, X., Fachini da Costa, L., Chaki, S. P., Katepalli, M., **Case, E. D.**, Van Schaik, E., Sidiq, T., Khalaf, O., Arenas, A., Kobayashi, K. S., Samuel, J. E., Rivera, G., Alaniz, R. C., Sze, S. H., Qian, X., Brown, W. J., Rice-Ficht, A., Russell, W., Ficht, T. A. *Mechanisms controlling Cryptococcus intracellular parasitism*. 2019. The Journal of Immunology. 202 (1 Supplement) 190.31
3. Pandey, A., Ding, S. L., Qin, Q. M., Gupta, R., Gomez, G., Lin, F., Feng, X., Fachini da Costa, L., Chaki, S. P., Katepalli, M., **Case, E. D.**, van Schaik, E. J., Sidiq, T., Khalaf, O., Arenas, A., Kobayashi, K. S., Samuel, J. E., Rivera, G. M., Alaniz, R., C., Sze, S. H., Qian, X., Brown, W. J., Rice-Ficht, A., Russell, W. K., Ficht, T. A., de Figueiredo, P. 2017. *Global reprogramming of host kinase signaling in response to fungal infection*. Cell Host and Microbe. 21 (5): 637-649. e6.
4. van Schaik, E. J., **Case, E. D.**, Martinez, E., Bonazzi, M., Samuel J. E. 2017. *The SCID mouse model for identifying virulence determinants in Coxiella burnetii*. Frontiers in Cellular and Infection Microbiology. 7: 25. doi: 10.3389/fcimb.2017.00025
5. Weber, M. M., Faris, R., van Schaik, E. J., McLachlan, J. T., Wright, W. U., Tellez, A., Roman, V. A., Rowin, K., **Case, E. D.**, Luo, Z.Q., Samuel, J.E. 2016. *The type IV secretion system effector protein CirA stimulates the GTPase*

- activity of *RhoA* and is required for virulence in a mouse model of *Coxiella burnetii* infection. 2016. *Infection and Immunity*. 84 (9): 2524-2533.
6. Drumheller, L. B., Wehrly, T. D., **Case, E. D.**, Celli, J., Bosio, C. M. 2016. *yidC* is required for virulent *Francisella tularensis* to modulate *IRF1* and resist killing by host cells. *The Journal of Immunology*. 196 (1 Supplement): 59.10
 7. **Case, E. D.**, Samuel, J. E. *Contrasting lifestyles within the host cell*. 2016. *Microbiology Spectrum*. Feb; 4(1): 10.1128/microbiolspec.VMBF-0014-2015.
 8. **Case, E. D.**, Smith, J.A., Ficht, T. A., Samuel, J.E., de Figueiredo, P. *Space: a final frontier for vacuolar pathogens*. 2016. *Traffic*. 17: 461–474.
 9. Robertson, G. T., **Case, E. D.**, Dobbs, N., Ingle, C., Balaban, M., Celli, J., Norgard, M. V. 2014. *FTT0831c/FTL_0325* contributes to *Francisella tularensis* cell division, maintenance of cell shape, and structural integrity. *Infection and Immunity*. 82(7): 2935-2948.
 10. **Case, E. D.**, Chong, A., Wehrly, T.D., Hansen, B., Child, R., Hwang, S., Virgin, H. W., Celli, J. 2014. *The Francisella O-antigen mediates survival in the macrophage cytosol via autophagy avoidance*. *Cellular Microbiology*.16: 862–877.
 - **Rated Very Good on F1000 Prime:** F1000Prime.com/718191152#eval793495293
 11. **Case, E. D.**, Akers, J. C., and Tan, M. 2011. *CT406* encodes a chlamydial ortholog of *NrdR*, a repressor of ribonucleotide reductase. *Journal of Bacteriology*. 193(17): 4396-404.
 12. **Case, E. D.**, Peterson, E. M., and Tan, M. 2010. *Promoters for Chlamydia Type III Secretion genes show a differential response to DNA supercoiling that correlates with temporal expression pattern*. *Journal of Bacteriology*. 192(10): 2569-74.
 13. Yu, H.H., **Di Russo, E.G.**, Rounds, M.A., and Tan, M. 2006. *Mutational analysis of the promoter recognized by Chlamydia and Escherichia coli σ^{28} RNA polymerase*. *Journal of Bacteriology*. 188(15): 5524-31.

Oral and Poster Presentations

Oral Presentations

1. **Case, E. D.**, van Schaik E., and Samuel, J.E. 2018. *Identification of Type IV Secretion Effectors that are Specifically Required for Replication of Coxiella burnetii in Primary Macrophages*. American Society for Rickettsiology. Milwaukee, WI.
2. **Case, E. D.**, van Schaik E., and Samuel, J.E. 2017. *The Type IV Secretion Effector CBU1217 Alters the Host Innate Response to Coxiella burnetii*. American Society for Microbiology, Texas Branch. College Station, TX.
3. **Case, E. D.** 2013. *Francisella Pathogenesis*. Invited Lecture for *Recent Advances in Clinical Medicine*, University of Montana, Missoula, MT.
4. **Case, E. D.**, Peterson, E., and Tan, M. 2008. *Chlamydia Type III Secretion Genes Show a Differential Response to Changes in DNA Supercoiling*. Chlamydia Basic Research Society. Little Rock, AR.
5. Yu, H. H. Y., **Di Russo, E. G.**, Rounds, M., and Tan, M. 2006. *Defining the σ^{28} promoter in Chlamydia by a comprehensive mutational analysis*. Eleventh International Symposium in Human Chlamydial Infections. Niagara-on-the-Lake, Ontario, Canada.

Posters

1. **Case, E. D.**, van Schaik, E.J., Mahapatra, S., and Samuel, J. E. 2019. *Type IV secretion-dependent inhibition of NF- κ B transcriptional networks by Coxiella burnetii*. American Society for Rickettsiology. Santa Fe, NM.

2. Talmage, S., van Schaik, E. J., **Case, E. D.**, Kraus, K, Patrick, K., and Samuel, J.E. 2018. *The Coxiella burnetii Type IV Effector CBU0794 Modulates Host Nuclear Processes*. American Society for Rickettsiology. Milwaukee, WI.
3. **Case, E. D.**, van Schaik, E. J., Dederich, D., Wong, S.M., Jones, D., Akerley, B. J., Hendrix, L. R., and Samuel, J. E. 2014. *An in vivo screen to identify essential virulence loci of Coxiella burnetii*. American Society for Rickettsiology. Lake Tahoe, CA.
4. **Case, E. D.**, van Schaik, E. J., Hendrix, L. R., and Samuel, J. E. 2014. *The type IV secreted effector CBU1217 is essential for intracellular replication of Coxiella burnetii*. Annual Meeting of the American Society for Microbiology. New Orleans, LA.
5. **Case, E. D.**, T. D. Wehrly, S. Hwang, H. W. Virgin, J. Celli. 2012. *A genetic screen for Francisella tularensis factors of autophagy avoidance*. International Conference on Tularemia. Breckenridge, Colorado.
6. **Di Russo, E. G.**, and M. Tan. 2007. *Transcriptional regulation of DNA synthesis in Chlamydia*. Chlamydia Basic Research Society. Louisville, Kentucky.
7. Yu, H. H. Y., **E. G. Di Russo**, and M. Tan. 2005. *Definition of the optimal σ^{28} promoter sequence*. Chlamydia Basic Research Society. Indianapolis, Indiana.
8. **Di Russo, E. G.**, T. M. Caton, K. E. Brown, M. A. Schneegurt, and R.V. Miller. 2002. *DNA repair capacity of bacteria isolated from the Great Salt Plains of Oklahoma*, p. 329-330. Annual Meeting of the American Society for Microbiology. Salt Lake City, Utah.

Scientific Outreach

Skype A Scientist	2019
Biomedical Research After-School Scholars (B.R.A.S.S.) Program	2011-2012
Guest Judge for Hamilton, MT Middle School Science Fair	2011
Volunteer Scientist with SpectrUM Hands on Health Exhibit- Hamilton, MT	2011
Lecturer for Sentinel High School A.P. Biology Students- Rocky Mountain Laboratories	2011