**Joel Wallace Graff**

1. **Professional Preparation.**

Institution Location Major Degree Year

Montana State University Bozeman Biotechnology B.S. 05/2001

Montana State University Bozeman Biology B.S. 05/2001

Montana State University Bozeman Virology Ph.D. 08/2008

**b. Appointments.**

2016-Present Assistant Professor (Biology), Montana Tech, Butte MT

2014-2016 Research Assistant Professor (Internal Medicine), University of Iowa, Iowa City IA

2008-2016 Research Health Science Specialist, University of Iowa, Iowa City IA

2010-2014 Research Scientist (Internal Medicine), University of Iowa, Iowa City IA

2008-2010 Postdoctoral Fellow (Internal Medicine), University of Iowa, Iowa City IA

2004-2008 Graduate Student, Montana State, Bozeman MT

2001-2004 Research Technician, Montana State, Bozeman MT

1999-2001 Undergraduate Research Assistant, Montana State, Bozeman MT

**c. Products.**

PRODUCTS MOST CLOSELY RELATED

1. Clay GM, Valaderes DG, **Graff JW**, Ulland TK, Davis RE, Scorza BM, Zhanbolat BS, Chen Y, Sutterwala FS, Wilson ME. An anti-inflammatory role for NLRP10 in murine cutaneous leishmaniasis. 2017. *J Immunol.* 199:2823-33. PMID 28931602.
2. Sudan B, Wacker MA, Wilson ME, **Graff JW**. A systematic approach to identify markers of distinctly activated human macrophages. 2015. *Front Immunol.* 6(Article 253):1-18. PMID 26074920.
3. Eigsti RL, Sudan B, Wilson ME, **Graff JW**. Regulation of activation-associated microRNA accumulation rates during monocyte-to-macrophage differentiation. 2014. *J Biol Chem*. 289(41):28433-47. PMID 25148686
4. **Graff JW**, Ettayebi K, Hardy ME. Rotavirus NSP1 inhibits NF-κB activation by inducing proteasome-dependent degradation of β-TrCP: A novel mechanism of IFN antagonism. *PLoS Pathogens*. 2009. 5:e1000280. PMID 19180189.
5. **Graff JW**, Dickson AM, Clay G, McCaffrey AP, Wilson ME. Identifying functional microRNAs in macrophages with polarized phenotypes. *J Biol Chem*. 2012 Jun 22; 287(26):21816-25. PMID 22549758.

OTHER SIGNIFICANT PRODUCTS

1. **Graff JW**, Ewen J, Ettayebi K, Hardy ME. Zinc-binding domain of rotavirus NSP1 is required for proteasome-dependent degradation of IRF3 and autoregulatory NSP1 stability. *J Gen Virol*. 2007, 88: 613-620. PMID: 17251580.
2. **Graff JW**, Mitzel DN, Weisend CM, Flenniken ML, Hardy ME. Interferon regulatory factor 3 is a cellular partner of rotavirus NSP1. *J Virol*. 2002, 76:9545-9550. PMID: 12186937.
3. Thalhofer CJ, **Graff JW**, Love-Homan L, Hickerson SM, Craft N, Beverley SM, Wilson ME.  In vivo Imaging of Transgenic Leishmania Parasites in a Live Host. *J Vis Exp*. 27(41). pii: 1980. doi: 10.3791/1980, 2010. PMID: 20689512.
4. **Graff JW**, Powers LS, Dickson AM, Kim J, Hassan IH, Kremens K, Gross TJ, Wilson ME, Monick MM. Cigarette smoking decreases global microRNA expression in human alveolar macrophages. *PLoS One*. 2012:7(8)e44066. PMID 22952876.
5. **Graff JW**, Mitzel DN, Weisend CM, Flenniken ML, Hardy ME. Interferon regulatory factor 3 is a cellular partner of rotavirus NSP1. *J Virol*. 2002, 76:9545-9550. PMID: 12186937.

**d. Synergistic activities.**

1. I view the scientific training of undergraduate students as a critical aspect of my position as a faculty member at a primarily undergraduate institute. In graduate school, I taught myself confocal microscopy by working my way step-by-step through the manual of my graduate department’s Zeiss LSM 510 Microscope. This was a valuable experience for me and I’m well-suited to teach this field to my students. I currently have about ten undergraduate students working in my lab and most of them are involved in projects that will one day utilize confocal microscopy. I’m looking forward to the day when I start training my students to use such an instrument as I believe it will spark a higher level of interest in research for them.

2. Prior to taking a position at Montana Tech, 100% of my focus was on molecular biology-based research. While running my own laboratory at the University of Iowa, I oversaw a research program with well around $200,000 a year in funding. At Montana Tech, I have had consistent research funding from Montana-based funding opportunities and am positioning my research program to be competitive for NSF and NIH funding. It is highly likely that my students will be using a confocal microscope as part of their research endeavors for years to come.