

Wenxin Wu, Ph.D.

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Contact Information:

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Education:

1997: Ph.D. Pathophysiology, Peking Union Medical College

Academic Appointments:

2006: Assistant Professor of Research, OUHSC

Awards and Honors:

1996: Travel Award, Chinese Society of Pathophysiology
2008: Montclair Who's Who in Healthcare (2008/2009 Edition)
2008: Clinical Innovator Award, Flight Attendant Medical Research
2012: Travel Award, the International Conference of the American Thoracic Society
2016: Travel Award for oral presentation, Annual Meeting of CSCTR

Other Experience and Professional Memberships:

2007: Member, American Society for Microbiology (ASM)
2008: Member, Central Society for Clinical Research (CSCR)
2008: Member, Oklahoma Tobacco Research Center (OTRC)
2009: Ad hoc grant reviewer, Flight Attendant Medical Research Institute (FAMRI)
2010: Ad hoc manuscript reviewer, Molecular Immunology (MIMM)
2010: Editor, Journal of Microbial & Biochemical Technology
2011: Ad hoc reviewer, Future Virology
2012: Ad hoc reviewer, Journal of Inflammation Research
2015: Ad hoc reviewer, Plos one
2016: Member, Oklahoma Center for Respiratory and Infectious Disease
2017: Library Advisory Committee of OUHSC
2017: Stewart Wolf Residents' Research Forum Judge, OUHSC
2017: Ad hoc reviewer, Innate Immunity
2018: Ad hoc reviewer, Microbial Pathogenesis
2019: Member, American Society for Virology (ASV)
2019: Ad hoc reviewer, Virology Journal

Research Funding:

Current:

- 01/2019-12/2019: OSCTR (Oklahoma Shared Clinical and Translational Resources), Pilot grant, "Restoring Cigarette Smoke-suppressed Antiviral Responses in a Human Model", Role: PI

- 09/2019-08/2020: College of Medicine Alumni Association (COMAA) Grant, "Therapeutic Activation of RIG-I During Influenza Infection", Role: Collaborator

Past:

- 07/2008-06/2011: FAMRI Clinical Innovator Award, "Cigarette Smoke Exposure and Influenza Virus Infection in Human Lung", Role: PI
- 08/2010-07/2013: OCAST Health Research Program, "Innate response to swine-origin influenza A/H1N1 virus", Role: PI
- 09/2013-08/2014: NIH U19 pilot project, "NOD2 and influenza virus infection in alveolar macrophages in the lung", Role: PI

Selected Publications:

1. Wenxin Wu, Gillian M. Air. Binding of influenza viruses to sialic acids: reassortant viruses with A/NWS/33 hemagglutinin bind to 2, 8-linked sialic acid. *Virology* 2004;325(2):340~350.
2. Wenxin Wu*, Kaushik Chakrabarty*, J. Leland Booth, Elizabeth S. Duggan, K. Mark Coggeshall and Jordan P. Metcalf Bacillus anthracis spores stimulate cytokine and chemokine innate immune responses in human alveolar macrophages through multiple MAPK pathways *Infection and Immunity*. 2006 Aug;74(8):4430-8 *These authors contributed to the paper equally.
3. Wenxin Wu, J. Leland Booth, K. Mark Coggeshall and Jordan P. Metcalf Calcium-dependent viral internalization is required for Adenovirus type 7 induction of IL-8 protein *Virology* 2006;355(1):18-29.
4. Wenxin Wu, Harshini Mehta, Kaushik Chakrabarty, J. Leland Booth, Elizabeth S. Duggan, Krupa B. Patel, Jimmy D. Ballard, K. Mark Coggeshall, Jordan P. Metcalf Resistance of Human Alveolar Macrophages to Bacillus anthracis Lethal Toxin *Journal of Immunology* 2009 Nov 1;183(9):5799-806. Epub 2009 Oct 7.
5. Wenxin Wu, J. Leland Booth, Elizabeth S. Duggan, Shuhua Wu, Krupa B Patel, K. Mark Coggeshall and Jordan P. Metcalf Innate immune response to H3N2 and H1N1 influenza virus infection in a human lung organ culture model. *Virology* 2010 Jan 20;396(2):178-88. Epub 2009 Nov 12.
6. Shuhua Wu, Krupa B Patel, J. Leland Booth, Jordan P Metcalf, Hsueh-Kung Lin, Wenxin Wu Protective Essential Oil Attenuates Influenza Virus Infection In MDCK Cells . *BMC Complement Altern Med*. 2010 Nov 15;10(1):69.
7. Shuhua Wu, Jordan P Metcalf, and Wenxin Wu Innate Immune Response to influenza virus. *Current Opinion of Infectious Disease* 2011 Jun;24(3):235-40.
8. Wenxin Wu, Krupa B. Patel, J. Leland Booth, Wei Zhang and Jordan P. Metcalf , Cigarette Smoke Extract Suppresses the RIG-I Initiated Innate Immune Response To Influenza Virus In Human Lung *Am J Physiol Lung Cell Mol Physiol* 2011 Jun;300(6):L821-30. (The paper is highlighted in *Physiology* October 2011 26:(5) 309-313).
9. Wenxin Wu, Wei Zhang, J. Leland Booth, Jordan P. Metcalf. Influenza A(H1N1)pdm09 Virus Suppresses RIG-I Initiated Innate Antiviral Responses in the Human Lung. *PLoS One*. 2012;7(11):e49856. doi: 10.1371/journal.pone.0049856. Epub 2012 Nov 21.
10. Wenxin Wu, Ahmed Awab and Jordan P. Metcalf. N-Acetylcysteine protection in COPD-an alternate mechanism of action. *Chest*. 2014 Jan 1;145(1):193-4. doi: 10.1378/chest.13-2029.
11. Wenxin Wu and Jordan P. Metcalf. Mannose-Binding Lectin in Fighting Influenza: Promise or Peril? *Journal of Leukocyte Biology* 2014 May vol. 95 no. 5 702-704 doi: 10.1189/jlb.0114003.
12. Wenxin Wu , Wei Zhang, Sunil More, J. Leland Booth, Elizabeth S. Duggan, Lin Liu, Yan D. Zhao, Jordan P. Metcalf Cigarette smoke attenuates the RIG-I-initiated innate antiviral response to influenza infection in two murine models. *Am J Physiol Lung Cell Mol Physiol*. 2014 Dec 1;307(11):L848-58. doi: 10.1152/ajplung.00158.2014.
13. Wenxin Wu, Wei Zhang, Elizabeth S. Duggan, J. Leland Booth, Ming-Hui Zou, Jordan P. Metcalf RIG-I and TLR3 are both required for maximum interferon induction by influenza virus in human lung alveolar epithelial cells. *Virology*. 2015 Aug;482:181-8. doi: 10.1016/j.virol.2015.03.048. PMID: 25880109.
14. Wenxin Wu, Wei Zhang, J. Leland Booth, David C. Hutchings, Xiaoqiu Wang, Houssein Youness, Cory D. Cross, Ming-Hui Zou, Dennis Burian, Jordan P. Metcalf Human Primary Airway Epithelial Cells Isolated From Active Smokers Have Epigenetically Impaired Antiviral Response *Respir Res*. 2016 Sep 7;17(1):111. doi: 10.1186/s12931-016-0428-2.