Michael James Conway, Ph.D.

Associate Professor of Microbiology and Immunology
Central Michigan University College of Medicine
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EDUCATION

B.S. Microbiology and Chemistry,
Northern Michigan University, 2005

Ph.D. Microbiology and Immunology,
Pennsylvania State University College of Medicine, 2010
Advisor: Dr. Craig Meyers

Postdoctoral Fellowship,
Yale University School of Medicine, 2013
Advisor: Dr. Erol Fikrig

PROFESSIONAL EXPERIENCE

2003-05	Teaching Assistant, Dept. of Biology, Northern Michigan University, Marquette, MI
2004	NSF REU Fellowship, Dept. of Microbiology, University of Iowa, Iowa City, IA
2004-05	Research Assistant, Dept. of Biology, Northern Michigan University, Marquette, MI
2005-10	Ph.D. Candidate Researcher, Dept. of Microbiology and Immunology, Pennsylvania State University College of Medicine, Hershey, PA
2006-10	Teaching Assistant, Dept. of Microbiology and Immunology, Pennsylvania State University College of Medicine, Hershey, PA
2009	Teaching Assistant, School of Science, Engineering, and Technology, Pennsylvania State University Harrisburg, Harrisburg, PA
2010-13	Postdoctoral Fellow, Department of Internal Medicine Infectious Diseases, Yale University School of Medicine, New Haven, CT
2012	Freelance Science Editor, Textcheck Inc.
2013-19	Assistant Professor of Microbiology and Immunology, Foundational Sciences, Central Michigan University College of Medicine, Mount Pleasant, MI
2019-	Associate Professor of Microbiology and Immunology, Foundational Sciences, Central Michigan University College of Medicine, Mount Pleasant, MI

HONORS, AWARDS, AND AFFILIATIONS

2004-	Member of the Tri-Beta National Biological Honor Society
2004-10	Member of the American Society of Microbiology
2007-10	Member of the International Papillomavirus Society
2007	NCI Travel Grant for the 2007 Small DNA Tumor Virus Meeting
2007	PSU College of Medicine Dean's Travel Award
2007	NIH/Roche Training Award for the 27th International Papillomavirus Conference
2009	NIH/Roche Training Award for the 28th International Papillomavirus Conference
2010	Pennsylvania State University College of Medicine Class of 1979 Alumni Award
2011	Pennsylvania State University College of Medicine Dean's Award for Graduate Education
2011-16	Member of the American Society of Tropical Medicine and Hygiene
2011-	Full member of the American Society for Virology
2012	ASV Travel Award for the 31st Annual Meeting for the American Society for Virology
2017	Founding Faculty Appreciation Award
2019	Excellence in Research Award Nominee

2019 FRCE Publication Cost Award

SERVICE TO PROFESSION

Manuscript reviews:

2013 Ad-hoc reviewer for Journal of Virology
2013 Ad-hoc reviewer for Journal of Biowar and Defense
2013 Guest Editor for BioMed Research International
2015 Ad-hoc reviewer for Parasites & Vectors
2016 Ad-hoc reviewer for Applied Environmental Microbiology
2016 Ad-hoc reviewer for Journal of Medical Entomology
2016 Ad-hoc reviewer for Biomedical and Environmental Sciences
2016 Ad-hoc reviewer for Forests
2016-18 Guest Editor for Frontiers in Microbiology
2016 Ad-hoc reviewer for Virulence *selected to write an editorial
2017 Ad-hoc reviewer for Trends in Parasitology
2017 Ad-hoc reviewer for Biochimie
2017 Ad-hoc reviewer for Virology
2018 Ad-hoc reviewer for Journal of NeuroVirology
2018 Ad-hoc reviewer for Frontiers Cellular and Infection Microbiology
2018 Ad-hoc reviewer for Nature
2019 Ad-hoc reviewer for Parasites & Vectors
2019 Ad-hoc reviewer for Biochimie
2019 Ad-hoc reviewer for Cell Reports
2019- Editorial Board Member for Scientific Reports
2019 Ad-hoc reviewer for BMC Infectious Diseases
2019 Ad-doc reviewer for Journal of Biomedical Sciences

Grant reviews:

2013 Grant reviewer for the Netherlands Organization for Scientific Research (NWO) Council of Earth and Life Sciences
2015 Grant reviewer for the Investigator Initiated Research (IIRA) and Technology/Therapeutic Development (TTDA) peer review panel of the Peer Reviewed Medical Research Program (PRMRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
2016 Early Career Reviewer for the National Institute for Allergy and Infectious Diseases (NIAID) Infectious Diseases and Microbiology IRG Vector Biology study section
2016 Grant reviewer for the Flavivirus (S) peer review panel of the 2017 Medical Infectious Diseases Research Program (MIDRP) for the Department of Defense Medical Research and Material Command (MRMC)
2016 Grant reviewer for the Emerging Infectious Diseases pre-application review panel of the Peer Reviewed Medical Research Program (PRMRP)
2016 Grant reviewer for the Vaccine Development for Infectious Diseases pre-application review panel of the Peer Reviewed Medical Research Program (PRMRP)
2016 NIAID Special Emphasis Panel, Rapid Assessment of Zika virus (ZIKV) Complications (R21) ZAI-BLF-M(S1)
2016 NIAID Special Emphasis Panel, Rapid Assessment of Zika virus (ZIKV) Complications (R21) ZAI1-JRR-M-J3
2017 Grant reviewer for the Florida Department of Health's Biomedical Research Program
2017 NIAID Special Emphasis Panel, Rapid Assessment of Zika virus (ZIKV) Complications (R21) ZAI1 M M3 – RG
2017 Grant reviewer for the Emerging Infectious Diseases pre-application review panel of the Peer Reviewed Medical Research Program (PRMRP)
2018 Grant reviewer for the Flavivirus (S) peer review panel of the 2018 Medical Infectious Diseases Research Program (MIDRP) for the Department of Defense Medical Research and Material Command (MRMC)
2018 Grant reviewer for the Program Evaluation of NIH Peer Review Process: The Role of Anonymization study.

2019 Grant reviewer for the Flavivirus Research/Dengue Vaccine (S) peer review panel of the 2020 Military Infectious Disease Research Program for the Department of Defense Medical Research and Material Command (MRMC)

INVITED TALKS

2013 Mosquito Saliva Protease Activity Enhances Dissemination of Dengue Virus in the Host. Northern Michigan University, Marquette, MI.
2015 "World War D" Speak up Speak out panel. Central Michigan University, Mount Pleasant, MI.
2016 Role of the Vector in Arbovirus Transmission. Field Neuroscience Institute, Saginaw, MI.
2019 Interspecies Interactions during Flavivirus Transmission. MMCA Annual Conference, Lansing, MI.

PREVIOUS FUNDING

2009-10 TSF GRSA SAP#410005094 Pennsylvania Commonwealth Department of Health
2011-12 NIH 5T32AI07019-35 Yale Interdisciplinary Immunology Training Program
2013 CMU CMED start-up - $350,000
2016 Field Neuroscience Institute - $30,000
2016 Experiment.com crowdfunding - $2,000
2016 CMED Bridge funding - $50,000
2017 CMED Bridge funding - $32,000
2018 CMED Bridge funding - $34,000
2018 CMU FRCE Research Grant - $16,000

GRANTS SCORED

2013 1R15AI112936-01 NIAID AREA grant (Impact score: 35)
2014 1R15AI112936-01A1 NIAID AREA grant (Impact score: 40)
2016 1R21AI128903-01 NIAID (Impact score: 50)
2016 1R21AI128902-01 NIAID (Impact score: 49)
2016 1R21HD090715-01 NIAID (Impact score: 32)
2016 1R21AI130267-01 NIAID (Impact score: 40)
2016 1R21AI131261-01 NIAID (Impact score: 40)
2016 PRMRP EID Subcontract (Full application stage, not funded)
2018 1R21 NIAID (Impact score: 66)

STUDENT TRAINING

2013 Nico Conti – Medical student
2014 Dexter R. McKellar – Medical student
2016 Mutshipay C. Mpoy – Medical student
2016 Zachary L. Wagar – Medical student
2016 Olivia V. Lossia - Neuroscience M.S. Thesis Committee
2016 Kris J. Kieft – Goldwater Scholarship Recipient
2017 Ulysses S. Johnson – Undergraduate student
2017 Stacy Goldthorpe – Medical student
2017 Jennifer Riepma – Medical student
2017 Alexandra Kiers – Medical student
2018 Christopher Bejcek – Medical student
2018 Jonathan Skurya – Medical student
2018 Andrew Marten – Undergraduate
2018 Christal Clemens – Medical student
2018 Sean McBrayer – Medical student
2018 Kellie Clark – Medical student
2018 Megan Freitas – Undergraduate student

2018 Gavin Moore – Undergraduate student
2019 Edwina R. Allen – BCMB Ph.D. Thesis Committee
2019 Clara Tift – Medical student

PUBLICATIONS

1. Conway, M.J*, Alam, S.*, and Craig Meyers. 2008. Cigarette Smoke Carcinogen Benzo[a]pyrene Enhances Human Papillomavirus Synthesis. J Virol. 87(2):1052-1058.
* These authors contributed equally
**This article was selected by the editor of Journal of Virology for inclusion in, "Spotlight", a feature which highlights articles of significant interest within the current issue.

2. Castle, P.E., Meyers, C., Alam, S., and Michael J. Conway. 2008. How Does Cigarette Smoke Contribute to Cervical Carcinogenesis? J Virol. 82(12):6084-6086.

3. Conway, M.J., and Craig Meyers. 2009. Replication and Assembly of Human Papillomaviruses. J Dent Res. 88(4):307-317.

4. Conway, M.J., Alam, S., Cruz, L., Christensen, N.D., Roden, R.B., and Craig Meyers. 2009. Tissue-Spanning Redox Gradient-Dependent Assembly of Native Human Papillomavirus Type 16 Virions. J. Virol. 83(20):10515-10526.

5. Conway, M.J., Alam, S., Christensen, N.D., and Craig Meyers. 2009. Overlapping and Independent Structural Roles for Human Papillomavirus Type 16 L2 Conserved Cysteines. Virology. 393(2):295-303.

6. Alam, S., Bowser, B., Conway, M.J., Israr, M., Ryndock, E.J., and Craig Meyers. 2010. Downregulation of Cdc2/CDK1 Kinase Activity Induces The Synthesis of Non-Infectious HPV31b Virions In Organotypic Tissues Exposed to Benzo[a]pyrene. J. Virol. 84(9):4630-45.

7. Chen, H.S., Bromberg-White, J., Conway, M.J., Alam, S., and Craig Meyers. 2010. Study of Infectious Virus Production from HPV18/16 Capsid Chimeras. Virology. 405(2):289-299.

8. Conway, M.J., Alam, S., Christensen, N.D., and Craig Meyers. 2011. Cross-Neutralization Potential of Human Papillomavirus L2 Epitopes. PLoS ONE. 6(2):e16405.

9. Chen, H.S., Conway, M.J., Christensen, N.D., Alam, S., and Craig Meyers. 2011. Papillomavirus Capsid Proteins Mutually Impact Structure. Virology. 412(2):378-83.

10. Conway, M.J., Cruz, L., Alam, S., Christensen, N.D., and Craig Meyers. 2011.Differentiation-Dependent Interpentameric Disulfide Bond Formation in Native Human Papillomavirus Type 16. PLoS ONE. 6(7):e22427.

11. Bowser, B.S., Chen, H.S., Conway, M.J., Christensen, N.D., and Craig Meyers. 2011. Human Papillomavirus Type 18 Chimeras Containing the L2/L1 Capsid Genes from Evolutionary Diverse Papillomavirus Types Generate Infectious Virus. Virus Research. 160(1-2):246-255.

12. Alam, S., Bowser, B.S., Israr, M., Conway, M.J., Tandon, A.T., and Craig Meyers. 2011. AAV2 Selectively Kills Immortalized but not Primary Human Cells. Mol. Cancer. 10:97.
*This article was "Highly Accessed" on Molecular Cancer's website and obtained significant local media coverage.

13. Colpitts, T.M., Conway, M.J., Montgomery, R.R., and Erol Fikrig. 2012. West Nile Virus: Biology, Transmission, and Human Infection. Clin. Microbiol. Rev. 25(4):635-48.

14. Conway, M.J., Watson, A.M., Colpitts, T.M., Dragovic, S.M., Li., Z., Wang, P., Feitosa, F., Shepherd, D.T, Ryman, K.D., Klimstra, W.B., Anderson, J.F., and Erol Fikrig. 2014. Mosquito Saliva Serine Protease Enhances Dissemination of Dengue Virus in the Host. J. Virol. 88(1): 164-75.

15. Meyers, J.M., Ryndock, E.J., Conway, M.J., Meyers, C.M., and Richard A. Robison. 2014. The Susceptibility of High-Risk Human Papillomavirus Type 16 to Clinical Disinfectants. J. Antimicrob. Chemother. 69(6): 1546-50.

16. Alam, S.A., Bowser B.S., Israr, M., Conway, M.J., and Craig Meyers. 2014. Adeno-Associated Virus Type 2 Infection of Nude Mouse Human Breast Cancer Xenograft Induces Necrotic Death and Inhibits Tumor Growth. Cancer Biol Ther. 15(8): 1013-28.

17. Ryndock, E.J., Conway, M.J., Alam, S.A., Gul, S., Murad, S., Christensen, N.D., and Craig Meyers. 2014. Roles for Human Papillomavirus Type 16 L1 Cysteine Residues 161, 229, and 379 in Genome Encapsidation and Capsid Stability. PLoS ONE. 9(6):e99488.

18. Conway, M.J., Colpitts, T.M., and Erol Fikrig. 2014. Role of the Vector in Arbovirus Transmission. Ann. Rev. Virol. 1: 71-88.
*This review was in the inaugural issue of Annual Review of Virology

19. Wang, P., Bai, F., Cheng, G., and Michael J. Conway. 2015. Vector-borne viral diseases. Biomed Res Int. 582045.
*Guest editor commentary

20. Londono-Renteria, B., Troupin, A., Conway, M.J., Vesely, D., Ledizet, M., Roundy, C.M., Cloherty, E., Jameson, S., VanLandingham, D., Higgs, S., Fikrig, E., and Tonya M. Colpitts. 2015. Dengue Virus Infection of *Aedes aegypti* Requires a Cysteine Rich Venom Protein. PLoS Pathogens. 11(10):e1005202.

21. Biryukov J., Cruz L., Conway M.J., and Craig Meyers. 2015. Cleavage of the HPV16 Minor Capsid Protein L2 during Virion Morphogenesis Ablates the Requirement for Cellular Furin during De Novo Infection. Viruses. 7(11):5813-5830.

22. Michael J. Conway. 2015. Identification of a Flavivirus Sequence in a Marine Arthropod. PLoS ONE. 10(12):e0146037.

23. McKellar, D.R., and Michael J. Conway. 2016. Safe Handling of West Nile Virus in the Insectary. Methods Mol Biol. 1435:143-50.

24. Troupin, A., Londono-Renteria, B., Conway, M.J., Jordan, A., Roundy, C., Cloherty, E., Higgs, S., VanLandingham, D., Fikrig, E., and Tonya M. Colpitts. 2016. A Mosquito Ubiquitin Protein Specifically Targets Dengue Virus Envelope Protein for Degradation and Initiates Cellular Apoptosis during Dengue Infection of Aedes aegypti. Biochim Biophys Acta. S0304-4165(16)30175-1.

25. Tree, M.O., McKellar, D.R., Kieft, K.J., Watson, A.M., Ryman, K.D., and Michael J. Conway. 2016. Insect Specific Flavivirus Infection is Restricted by Mammalian Innate Immunity. Virology. 497:81-91.

26. Conway, M.J., Londono-Renteria, B., Troupin, A., Fikrig, E., and Tonya M. Colpitts. 2016. *Aedes aegypti* D7 Saliva Protein Binds and Inhibits Dengue Virus Infection. PLoS Neg Trop Dis. 10(9):e0004941.
*Selected for a press release

27. Wagar, Z.L., Tree, M.O., Mpoy, M.C., and Michael J. Conway. 2017. Low Density Lipoprotein Inhibits Flavivirus Acquisition in *Aedes aegypti*. Insect Mol Bio. 26(6):734-742.

28. Goldthorpe, S.C., and Michael J. Conway. 2017. New Insight on Dengue virus-Induced Thrombocytopenia. Virulence. 8(8):1492-1493.

29. Lossia, O.V., Conway, M.J., Tree, M.O., Williams, R.J., Srinageshwar, B., Dunbar, G.L., and Julien Rossignol. 2017. Zika Virus Induces Astrocyte Differentiation in Neural Stem Cells. J NeuroVirol. 24(1):52-61.

30. Lamb, L.E., Bartolone, S.N., Tree, M.O., Conway, M.J., Rossignol, J., Smith, C.P., and Michael B. Chancellor. 2018. Rapid Detection of Zika Virus in Urine Samples and Infected Mosquitoes by Reverse Transcription-Loop-Mediated Isothermal Amplification. Sci Rep. 8(1):3803.

31. Londono-Renteria, B., Shakeri, H., Rozo-Lopez, P., Conway, M.J., Duggan, N., Jaberi-Douraki, and Tonya M. Colpitts. 2018. Serosurvey of human antibodies recognizing *Aedes aegypti* D7 salivary proteins in Colombia. Frontiers Public Health. 6:111.

32. Bartolone, S.N., Tree, M.O., Conway, M.J., Chancellor, M.B., and Laura E. Lamb. 2018. Reverse Transcriptase-Loop-Mediated Isothermal Amplification (RT-LAMP) assay for Zika virus and housekeeping genes in urine, serum, and mosquito samples. J Vis Exp. (139).

33. Tree, M.O., Londono-Renteria, B., Troupin, A., Clark, K.M., Colpitts, T.M., and Michael J. Conway. 2019. Dengue virus reduces expression of low-density lipoprotein receptor-related protein 1 to facilitate replication in *Aedes aegypti*. Sci Rep. 9(1):6352.

ABSTRACTS AND PRESENTATIONS

1. Samina Alam, M.J. Conway, and Craig Meyers. Exposure of HPV31b Infected Keratinocytes to Cigarette Smoke Carcinogen Benzo[a]pyrene Results in Alteration of Host Cell Cycle Profile and Viral Life Cycle. Oral and Poster Presentation at the 2006 23rd International Papillomavirus Conference and Clinical Workshop in Prague, Czech Republic.

2. M.J. Conway. Genetic analysis of HPV16 capsid cysteines and their roles in virion morphogenesis. Oral Presentation at the 2007 Penn State College of Medicine Microbiology and Immunology Student Seminar Series.

3. M.J. Conway and Craig Meyers. Genetic analysis of HPV16 capsid cysteines and their roles in virion morphogenesis. Oral Presentation at the 2007 DNA Tumor Virus Meeting in Trieste, Italy.

4. Samina Alam, M.J. Conway, and Craig Meyers. Exposure of HPV31b Infected Keratinocytes to Cigarette Smoke Carcinogen Benzo[a]pyrene Results in Alteration of Host Cell Cycle Profile and Viral Life Cycle. Oral and Poster Presentation at the 2007 DNA Tumor Virus Meeting in Trieste, Italy.

5. M.J. Conway and Craig Meyers. Genetic analysis of HPV16 L1 capsid cysteines and their roles in virion morphogenesis. Oral and Poster Presentation at the 2007 24th International Papillomavirus Conference and Clinical Workshop in Beijing, China.

6. M.J. Conway and Craig Meyers. Genetic analysis of HPV16 L2 conserved cysteines and cross-neutralization of synthetic vs. authentic papillomavirus particles. Poster Presentation at the 2007 24th International Papillomavirus Conference and Clinical Workshop in Beijing, China.
* Cited in Pereira et al., 2009

7. Samina Alam, M.J. Conway and Craig Meyers. Exposure of HPV31b infected keratinocytes to cigarette smoke carcinogen benzo[a]pyrene results in stimulation of virion synthesis and alteration of host cell cycle profile. Poster Presentation at the 2007 24th International Papillomavirus Conference and Clinical Workshop in Beijing, China.

8. M.J. Conway, and Craig Meyers. Structural comparisons between synthetic and authentic human papillomavirus type 16 particles. Poster presentation at the 2007 Pennsylvania State University Cancer Institute Retreat.

9. Samina Alam, M.J. Conway, Horng Shen Chen, and Craig Meyers. Exposure of human papillomavirus infected keratinocytes to cigarette smoke carcinogen benzo[a]pyrene results in enhancement of virion synthesis and alteration of host cell cycle and tissue differentiation profiles. Oral Presentation at the 2007 Pennsylvania State University Cancer Institute Retreat.

10. M.J. Conway, and Craig Meyers. Native versus synthetic papillomavirus particles. Poster Presentation at the 2008 Scientific Committee of the HPV in Human Pathology Congress in Prague, Czech Republic.

11. M.J. Conway, and Craig Meyers. Native versus synthetic papillomavirus particles. Oral Presentation at the 2008 Scientific Committee of the HPV in Human Pathology Congress in Prague, Czech Republic.

12. M.J. Conway, and Craig Meyers. Genetic and Biochemical Analysis of Conserved HPV16 L1 Cysteines in Native Virions. Poster Presentation at the 2008 Pennsylvania State University's 27th Summer Symposium in Molecular Biology: Inflammation, Innate Immunity, and Disease in University Park, PA.

13. Samina Alam, Brian Bowser, M.J. Conway, and Craig Meyers. Cigarette smoke carcinogen benzo[a]pyrene regulated enhancement of human papillomavirus synthesis correlates with altered host cell cycle and tissue differentiation profiles. Poster Presentation at the 2008 Pennsylvania State University's 27th Summer Symposium in Molecular Biology: Inflammation, Innate Immunity, and Disease in University Park, PA.

14. M.J. Conway. Structural Comparisons between Native and Synthetic Papillomavirus Particles. Oral Presentation at the 2008 Penn State College of Medicine Microbiology and Immunology Student Seminar Series.

15. M.J. Conway and Craig Meyers. Redox-Dependent Assembly of Native HPV16 Virions within Organotypic "Raft" Culture. Oral Presentation at the 2008 Molecular Biology of DNA Tumor Virus Conference in Madison, WI.

16. M.J. Conway and Craig Meyers. Genetic and Biochemical Analysis of Conserved HPV16 L1 Cysteines in Native Virions. Poster Presentation at the 2008 Molecular Biology of DNA Tumor Virus Conference in Madison, WI.

17. Samina Alam, Brian Bowser, M. J. Conway, and Craig Meyers. Cigarette smoke carcinogen benzo[a]pyrene regulated enhancement of human papillomavirus synthesis correlates with altered host cell cycle and tissue differentiation profiles. Poster Presentation at the 2008 Molecular Biology of DNA Tumor Virus Conference in Madison, WI.

18. M.J. Conway. Genetic Analysis of HPV16 Capsid Cysteines and their Roles in Virion Morphogenesis. Oral Presentation at the 2008 Penn State College of Medicine Microbiology and Immunology Student Seminar Series.

19. M.J. Conway, Samina Alam, Linda Cruz, Neil D. Christensen, Richard B.S. Roden, and Craig Meyers. Tissue-Spanning Redox Gradient-Dependent Assembly and Maturation of Native HPV16 Virions. Oral Presentation at the 2009 Penn State College of Medicine Graduate Student Research Forum.

20. M.J. Conway, Samina Alam, Linda Cruz, Neil D. Christensen, Richard B.S. Roden, and Craig Meyers. Tissue-Spanning Redox Gradient-Dependent Assembly and Maturation of Native HPV16 Virions. Oral Presentation at the 2009 Penn State College of Medicine/University Park/Cornell University Virus Assembly Meeting.

21. Jordan M. Meyers, M. J. Conway, Craig Meyers, Kim O'Neill, and Richard A Robison. Chemical Inactivation of Native High-Risk Human Papilloma Virions as Measured by a Novel qRT-PCR Infectivity Assay. Oral Presentation at the 2009 ASM Intermountain Branch Annual Meeting.

22. M.J. Conway, Samina Alam, Linda Cruz, Neil D. Christensen, Richard B.S. Roden, and Craig Meyers. Tissue-Spanning Redox Gradient-Dependent Assembly of Native Human Papillomaviruses. Poster Presentation at the 2009 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

23. M.J. Conway, Samina Alam, Neil D. Christensen, and Craig Meyers. Temporostructural Rearrangements of the Human Papillomavirus L2 External Loop. Oral Presentation at the 2009 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

24. M.J. Conway, Samina Alam, Eric Ryndock, Neil D. Christensen, Richard B.S. Roden, and Craig Meyers. Neutralization of Native Human Papillomavirus Types: 16, 31, 18, and 45 with anti-HPV16 L2 External Loop-Targeting Antibodies. Poster Presentation at the 2009 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

25. Linda Cruz, M.J. Conway, and Craig Meyers. Differential Cleavage of Native HPV16, HPV18, and HPV31 L2 N-termini by Furin. Poster Presentation at the 2009 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

26. Samina Alam, Brian Bowser, M.J. Conway, Mohd Israr, and Craig Meyers. Benzo[a]pyrene Alters HPV Synthesis and Cell Cycle: Modulating Dual Carcinogenesis? Poster Presentation at the 2009 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

27. Craig Meyers, Apurva Tandon, M. J. Conway, Samina Alam, and John Doorbar. The HPV18 E1^E4 Protein in the Production of Infectious Virus. Poster Presentation at the 25th International Papillomavirus Conference and Clinical Workshop in Mälmo, Sweden.

28. Craig Meyers, Linda Cruz, Samina Alam, and M.J. Conway. Assembly and Entry of Human Papillomavirus: A Comparative Analysis. Oral Presentation at the 2009 DNA Tumour Virus Conference in Oxford, UK.

29. M.J. Conway. Tissue-Dependent Assembly of Native HPV16 Virions and Involvement of Capsid Cysteines. Oral Presentation at the 2009 Penn State College of Medicine Microbiology and Immunology Student Seminar Series.

30. Linda Cruz, M.J. Conway, and Craig Meyers. Differences in Early Entry Events Between High-Risk Native Papillomaviruses. Poster Presentation at the 3rd annual Penn State College of Medicine Departments of Medicine and Microbiology and Immunology Research Day.

31. Jordan Meyers, Eric Ryndock, M.J. Conway, Craig Meyers, and Richard Robison. The Susceptibility of HPV16 Native and Quasivirus Particles to Clinically Relevant Disinfectants. Poster Presentation at the 26th International Papillomavirus Conference and Clinical Workshop in Montreal, Canada.

32. M. J. Conway, Linda Cruz, Samina Alam, and Craig Meyers. Temporal Roles for Native Human Papillomavirus Type 16 Conserved L1 Cysteines in Virion Morphogenesis. Poster Presentation at the 26th International Papillomavirus Conference and Clinical Workshop in Montreal, Canada.

33. Linda Cruz, M. J. Conway, and Craig Meyers. Differences in Early Entry Events Between High-Risk Native Papillomaviruses. Poster Presentation at the 26th International Papillomavirus Conference and Clinical Workshop in Montreal, Canada.
* won “Best Poster in Basic Science”

34. Samina Alam, Brian S. Bowser, M. J. Conway, Mohd Israr, Eric J. Ryndock, Long Fu Xi, and Craig Meyers. Decreasing CDK1 Activity Induces The Synthesis of Non-infectious Virions Exposed to Benzo[a]pyrene. Poster Presentation at the 26th International Papillomavirus Conference and Clinical Workshop in Montreal Canada.

35. Denueve Shepherd, M. J. Conway, Fabiana Feitosa, and Erol Fikrig. Mosquito Saliva Enhances Flavivirus Infectivity in Skin-Associated Cell Lines. Poster Presentation at the 2011 Yale University BioStep Program Summer Research Symposium in New Haven, CT.

36. M.J. Conway, Fabiana Feitosa, Denueve Shepherd, and Erol Fikrig. Mosquito Saliva Proteins Enhance Dengue Virus Infectivity in Human Skin. Poster Presentation at the 2011 Yale University Immunobiology Retreat in Hancock, MA.

37. M.J. Conway. Mosquito Salivary Serine Proteases Enhance Attachment to Skin Extracellular Matrix Protein. Oral Presentation at the 2011 Yale University Infectious Disease and Rheumatology Seminar Series in New Haven, CT.

38. M.J. Conway, Tonya Colpitts, and Erol Fikrig. Roles for Venom Proteins in the Transmission of Flaviviuses. Oral Presentation at the 60th Annual American Society for Tropical Medicine and Hygiene Conference in Philadelphia, PA.

39. M.J. Conway, Fabiana Feitosa, Tonya Colpitts, John F. Anderson, and Erol Fikrig. Mosquito Saliva Protease Activity Enhances Dengue Virus Attachment to Host Extracellular Matrix. Oral Presentation at the 31st Annual Meeting of the American Society for Virology in Madison, WI.

40. M.J. Conway, Tonya Colpitts, and Erol Fikrig. Elucidating the Interactome of Dengue Virus and Mosquito Salivary Gland Proteins and its Role in Transmission to the Host. Oral Presentation at the 32nd Annual Meeting of the American Society for Virology in State College, PA.

41. Kristopher J. Keift, Maya O. Tree, Nico Conti, and Michael J. Conway. Role of an Endogenous Viral Polymerase in a Vector Mosquito. Poster Presentation at the Annual Student Research and Creative Endeavors Exhibition (SCREE) at Central Michigan University in Mount Pleasant, MI.

42. Maya O. Tree, Nico Conti, Kristopher J. Keift, and Michael J. Conway. Role of an Endogenous Viral Polymerase in a Vector Mosquito. Poster Presentation at the 63rd Annual American Society for Tropical Medicine and Hygeine Conference in New Orleans, LA.

43. Alan M. Watson, Michael J. Conway, and Kate Ryman. Mosquito Saliva Enhances Infectivity of Yellow Fever Virus. Poster Presentation at the 63rd Annual American Society for Tropical Medicine and Hygeine Conference in New Orleans, LA.

44. Andrea Troupin, Michael J. Conway, Michel Ledizet, Christopher Roundy, Berlin Londono-Renteria, Abigail Jordan, Erin Cloherty, Mir Bear-Johnson, Crystal Grippin, Erol Fikrig, and Tonya M. Colpitts. Dengue virus infection of Ae. aegypti requires a cysteine-rich venom protein. Poster Presentation at the 63rd Annual American Society for Tropical Medicine and Hygeine Conference in New Orleans, LA.

45. Kristopher J. Keift , Maya O. Tree, Nico Conti, and Michael J. Conway. Insect specific flavivirus infection is limited by innate immunity in mammalian cells. Poster Presentation at the 2nd Annual Honors Research and Creative Endeavors Exhibition at Central Michigan University in Mount Pleasant, MI.

46. Maya O. Tree, Kristopher J. Kieft, Dexter R. McKellar, Alan M. Watson, Kate D. Ryman, and Michael J. Conway. Insect specific flavivirus infection is restricted by innate immunity pathways in the mammalian host. Oral Presentation at the 34th Annual Meeting of the American Society for Virology in London ON, Canada.

47. Alan M. Watson, Metthew Lam, Michael J. Conway, William B. Klimstra, and Kate D. Ryman. Enhancement of yellow fever virus by mosquito salivary gland extract. Oral Presentation at the 34th Annual Meeting of the American Society for Virology in London ON, Canada.

42. Maya O. Tree, Ulysses G. Johnson, Kristopher J. Kieft, Dexter R. McKellar, Nico Conti, and Michael J. Conway. Aedes aegypti endogenous NS1 localizes to intracellular membranes and inhibits flavivirus replication. Oral Presentation at the 35th Annual Meeting of the American Society for Virology in Blacksburg, VA.

43. Sarah N. Bartolone, Michael J. Conway, Maya O. Tree, Olivia V. Lossia, Gary L. Dunbar, Julien Rossignol, Kenneth Peters, Michael B. Chancellor, and Laura E. Lamb. Urine based rapid molecular diagnosis of Zika virus. Oral Presentation at American Urological Association 2017 Annual Meeting in Boston, MA.

44. Lossia, O.V., Tree, M.O., Peterson, E.D., Srinageshwar, B., Hochgeschwender, U., Dunbar, G.L., Conway, M.J., and Julien Rossignol. Determining the impact of Zika virus infection in neural stem cells and mature neurons. Poster Presentation at miSfN.

45. Zachary L. Wagar, Mutshipay C. Mpoy, Maya O. Tree, and Michael J. Conway. Low density lipoprotein inhibits flavivirus acquisition in Aedes aegypti. Poster Presentation at the 2nd Annual CMED Student Research Forum in Mount Pleasant, MI.

46. Zachary L. Wagar, Mutshipay C. Mpoy, Maya O. Tree, and Michael J. Conway. Low density lipoprotein inhibits flavivirus acquisition in Aedes aegypti. Poster Presentation at the 2017 CMU Faculty Excellence Exhibition in Mount Pleasant, MI.

47. Tree, M.O., Londono-Renteria, B., Troupin, A., Clark, K.M., Colpitts, T.M., and Michael J. Conway. Dengue virus reduces expression of low-density lipoprotein receptor-related protein 1 to facilitate replication in *Aedes aegypti*. Poster Presentation at the 4th Annual CMED Student Research Forum in Mount Pleasant, MI.

DEPARTMENTAL/UNIVERSITY SERVICE

2013	Research Subcommittee for Bioscience Building Design
2013-	Multiple Mini Interviews
2013	President's and Provost's Awards for Outstanding Research and Creative Activity Committee
2013-	Student Performance and Conduct Committee (SPCC)
2013	LCME Provisional Accreditation Site Visit
2013-14	CMED Curriculum Committee
2014-17	Program Evaluation Committee
2014-	Secondary Reviews
2014	Faculty Search Committee
2014	Year 1/2 Director Search Committee
2014	Course Director Meetings
2014	FAP advisor
2014	LCME Provisional Accreditation Site Visit
2015	IT Subcommittee
2015	Anatomy Subcommittee
2015	CMU Academic Senate
2015	Musculoskeletal-Dermatology Course Director
2016	Global Health SIG mentor
2016-	Vice Chair SPCC
2016-17	Interim Chair Global Health Elective Committee
2016-18	IACUC member
2017-	Admissions Committee
2017	BCMB Ph.D. Program Committee
2017	President's and Provost's Awards for Outstanding Research and Creative Activity Committee
2018	CMED/CMEP Research Symposium Judge and Moderator
2018	LCME Full Accreditation Site Visit – achieved full accreditation of a brand new medical school
2018	Faculty Organizer for the 3rd Annual CMU College of Medicine Student Research Symposium
2018	Co-chair MSPE Committee
2018-	CMED Seminar Series organizer
2018-	CMU Budget Priority Committee
2019	CMED/CMEP Research Symposium Judge and Moderator

TEACHING

2013	Facilitated 16-week problem based learning course
2013	Foundations of Medicine large group sessions: -Normal flora and bacterial pathogenicity -Bacterial detection and identification -Oddball agents -Microbial evolution and emerging infectious disease -Transmission, epidemiology, and public health -Immunology lab
2014	Wrote/facilitated two cases for the Cardiopulmonary Organ System Course
2014	Facilitated 16-week problem based learning course
2014	Desert survival small group activity
2014	Wrote two cases for the Neuroscience Organ System Course

2014 Neuroscience Organ System Course large group sessions:
-Brain bugs
-Multiple sclerosis
-Bell's palsy
2014 Wrote three cases for the Gastrointestinal Organ System Course
2014 Gastrointestinal Organ System Course large group sessions:
-Upper GI bugs
-Hepatitis pathology
2014 Facilitated 16-week problem based learning course
2014 Foundations of Medicine large group sessions:
-Normal flora and bacterial pathogenicity
-Bacterial detection and identification
-Oddball agents
-Clinical correlate
-Microbial evolution and emerging infectious disease
-Transmission, epidemiology, and public health
-Immunology lab
2015 Musculoskeletal Organ System Course co-director
2015 Wrote two cases and one TBL session for the Musculoskeletal Organ System Course
2015 Musculoskeletal Organ System Course large group sessions:
-Genetic and Environmental diseases of skin
-Skin defenses and normal flora
-Skin microbiology and exanthems
-HPV and skin tumors
2015 Facilitated two cases for the Cardiopulmonary Organ System Course
2015 Facilitated a TBL session for the Hematology-Oncology Organ System Course
2015 Wrote/facilitated one case for the Hematology-Oncology Organ System Course
2015 Guest lecture in Public Health Microbiology at Central Michigan University
2015 Wrote/facilitated one case for the Neuroscience Organ System Course
2015 Facilitated two additional cases for the Neuroscience Organ System Course
2015 Neuroscience Organ System Course large group sessions:
-Brain bugs
-Multiple sclerosis
-Bell's palsy
2015 Facilitated four cases for the Gastrointestinal Organ System Course
2015 Gastrointestinal Organ System Course large group sessions:
-Liver I: Histology and patterns of disease
-Normal flora and related infections
-GI pathogens I
-GI pathogens II
2015 Presentation for Wilderness Medicine Sig: Infectious Disease and Travel Medicine
2015 Facilitated 16-week problem based learning course
2015 Foundations of Medicine large group sessions:
-Normal flora and bacterial pathogenicity
-Bacterial detection and identification
-Oddball agents
-Clinical correlate
-Microbial evolution and emerging infectious disease
-Transmission, epidemiology, and public health

-Immunology lab

2016 Musculoskeletal Organ System Course co-director

2016 Facilitated two cases and one TBL session for Musculoskeletal Organ System Course

2016 Musculoskeletal Organ System Course large group sessions:
-Genetic and Environmental diseases of skin
-Skin defenses and normal flora
-Skin microbiology and exanthems
-HPV and skin tumors

2016 Facilitated a TBL session for the Hematology-Oncology Organ System Course

2016 Facilitated two cases for the Cardiopulmonary Organ System Course

2016 Facilitated three cases for the Neuroscience Organ System Course

2016 Neuroscience Organ System Course large group sessions:
-CNS Immunology
-CNS Infections

2016 Facilitated four cases for the Gastrointestinal Organ System Course

2016 Wrote/facilitated 2 Monday TBLs for the Gastrointestinal Organ System Course

2016 Gastrointestinal Organ System Course large group sessions:
-Liver infections
-Normal flora and related infections
-GI pathogens I
-GI pathogens II

2016 Presentation for Global Health Sig: Zika virus emergence and human disease

2016 Facilitated 16-week problem based learning course

2016 Foundations of Medicine large group sessions:
-Normal flora and bacterial pathogenicity
-Bacterial detection and identification
-Oddball agents
-Clinical correlate
-Microbial evolution and emerging infectious disease
-Immunology lab

2017 Musculoskeletal Organ System Course co-director

2017 Facilitated four cases and two TBL sessions for Musculoskeletal Organ System Course

2017 Musculoskeletal Organ System Course large group sessions:
-Microbiology I
-Microbiology II

2017 Hematology-Oncology Organ System Course large group session:
-Leukocytosis and leukopenia

2017 Facilitated two TBL sessions for the Hematology-Oncology Organ System Course

2017 Facilitated two cases for the Cardiopulmonary Organ System Course

2017 Facilitated one review session in SYNAPSE

2017 Guest lecture in Public Health Microbiology at Central Michigan University

2017 Facilitated 16-week problem based learning course

2017 Foundations of Medicine large group sessions:
-Clinical correlate
-Bacterial detection and identification
-Normal flora and bacterial pathogenicity
-Immunology lab
-Parasites I
-Parasites II

-Microbial evolution and emerging infectious disease
2017 Facilitated three cases for the Neuroscience Organ System Course
2017 Neuroscience Organ System Course large group sessions:
-CNS Infections
-Demyelinating diseases
2017 Facilitated four cases for the Gastrointestinal Organ System Course
2017 Facilitated 1 Monday TBL for the Gastrointestinal Organ System Course
2017 Gastrointestinal Organ System Course large group sessions:
-Liver infections
-Normal flora and related infections
-GI pathogens I
-GI pathogens II
-GI pathogens III
2018 Musculoskeletal Organ System Course co-director
2018 Facilitated four cases and two TBL sessions for Musculoskeletal Organ System Course
2018 Musculoskeletal Organ System Course large group sessions:
-Microbiology I
-Microbiology II
2018 Hematology-Oncology Organ System Course large group session:
-Leukocytosis and leukopenia
2018 Facilitated two TBL sessions for the Hematology-Oncology Organ System Course
2018 Facilitated one case for the Cardiopulmonary Organ System Course
2018 Facilitated one review session in SYNAPSE
2018 Presentation for Rare Diseases SIG: Biological and Chemical Weapons
2018 Facilitated 16-week problem based learning course
2018 Foundations of Medicine large group sessions:
-Clinical correlate
-Bacterial detection and identification
-Normal flora and bacterial pathogenicity
-Immunology lab
-Parasites I
-Parasites II
-Microbial evolution and emerging infectious disease
2018 Facilitated three cases for the Neuroscience Organ System Course
2018 Neuroscience Organ System Course large group sessions:
-CNS Infections
-Demyelinating diseases
2018 Facilitated four cases for the Gastrointestinal Organ System Course
2018 Facilitated 1 Monday TBL for the Gastrointestinal Organ System Course
2018 Gastrointestinal Organ System Course large group sessions:
-Liver infections
-Normal flora and related infections
-GI pathogens I
-GI pathogens II
-GI pathogens III
2018 Rare Diseases SIG Lunch and Learn – GI infections
2019 Musculoskeletal Organ System Course co-director
2019 Facilitated four cases and two TBL sessions for Musculoskeletal Organ System Course
2019 Musculoskeletal Organ System Course large group sessions:

-Microbiology I
-Microbiology II

2019 Hematology-Oncology Organ System Course large group session:
-Leukocytosis and leukopenia

2019 Facilitated two TBL sessions for the Hematology-Oncology Organ System Course

2019 Facilitated two cases for the Cardiopulmonary Organ System Course

2019 Facilitated one review session in SYNAPSE

2019 Facilitated one case in Renal/Endo

COMMUNITY SERVICE

2016- Mount Pleasant Discovery Museum Event Volunteer

2017 Co-Chair Sexual Education Advisory Board, Renaissance Public School Academy

2017 GreenTree Cooperative Grocery Board Member - Secretary

2017 Timbertown 2.0 Community Build Volunteer

2017 Renaissance Public School Academy Field Day Volunteer

2018 Chippewa Watershed Conservancy Lands Committee

2018- GreenTree Cooperative Grocery Board Member - Chair