

Denise M. Monack, Ph.D.

A. ACADEMIC HISTORY

Colleges and Universities

1984 B.S. Genetics, University of California, Davis,
2002 Ph.D. Microbiology and Immunology, Stanford University School of Medicine

Scholarships and Honors

1984 High Honors upon receipt of Bachelor of Science, Genetics, University of California, Davis.
2001 Sydney Raffle Award for Outstanding Graduate Student, Department of Microbiology and Immunology, Stanford University

Other Study and Research Opportunities

1980-84 Undergraduate research under Dr. Richard Criddle, University of California at Davis, CA
1983 Summer Intern, Fermentation Department, Genentech, Inc., South San Francisco, CA
1989 Research Assistant, Affymax Research Institute, Palo Alto, CA

B. EMPLOYMENT HISTORY

1984-87 Life Science Technician, Department of Microbiology and Immunology, Stanford University School of Medicine, Dr. Stanley Falkow's Lab
1987-98 Research Assistant, Department of Microbiology and Immunology, Stanford University School of Medicine, Dr. Stanley Falkow's Lab
2002-07 Senior Research Scientist, Department of Microbiology and Immunology, Stanford University School of Medicine
2007-2008 Acting Assistant Professor, Department of Microbiology and Immunology, Stanford University School of Medicine
2008-2012 Assistant Professor, Department of Microbiology and Immunology, Stanford University School of Medicine
2011-pres Faculty, Immunology Program, Stanford University School of Medicine
2012-2016 Associate Professor, Department of Microbiology and Immunology, Stanford University School of Medicine
2012-2017 Director, Graduate Admissions Program, Department of Microbiology and Immunology, Stanford University School of Medicine
2016-present Professor, Department of Microbiology and Immunology, Stanford University School of Medicine
2019-present Associate Chair, Department of Microbiology and Immunology, Stanford University, School of Medicine

Teaching Experience

2007 to present Microbial pathogenesis graduate student course in the Department of Microbiology and Immunology. MI210. Bacterial Pathogenesis lectures.
2011 to present Microbial pathogenesis graduate student course in the Department of Microbiology and Immunology. MI210. Course Instructor.
2011 to 2013 Advanced immunology II graduate student course in Immunology. Course instructor K. Christopher Garcia. Lecture on the Inflammasome and Innate Immunity.

C. PROFESSIONAL SERVICE and LEADERSHIP

Editorial Board
2020 to present *Cell Host and Microbe* Editorial Board
2014 to present Section Editor at *PLoS Pathogens*
2010 to present Section Editor at *Infection and Immunity*

2012 to present	<i>Pathogens and Disease</i>
2017 to present	<i>Journal of Experimental Medicine</i>
Ad Hoc Reviewer	
1998 to present	<i>Proceedings of the National Academy of Sciences</i>
1998 to present	<i>Molecular Microbiology and Cellular Microbiology</i>
1998 to present	<i>Infection and Immunity</i>
1999 to present	<i>Microbes and Infection</i>
2001 to present	<i>Science</i>
2003 to present	<i>Cell</i>
2005 to present	<i>PLOS Pathogens</i>
2005 to present	<i>Nature</i>
2007 to present	<i>Nature Immunology</i>
2007 to present	<i>Nature Medicine</i>
Scientific Advisory Boards and Committees	
2009 to 2013	NIH/NIAID Systems Biology Working Group for Systems Biology Program at the University of Washington.
2007 to present	Department of Microbiology and Immunology Seminar Speaker Selection Committee
2008 to present	Department of Microbiology and Immunology Graduate Admissions Committee
2012 to 2017	Director, Microbiology and Immunology Graduate Program
2012 to 2017	Microbiology and Immunology CGAP Representative
2013 to present	Member, School of Medicine Assistant Professor Review Committee
2013 to 2020	Member, Administrative Biosafety Protocol Committee
Study Sections for Grant Reviews	
2008	NIH/NIAID Study Section for Regional Centers of Excellence
2012	NIH/NIAID Host Interactions with Bacterial Pathogens Study Section
2013 to 2017	NIH/NIAID Host Interactions with Bacterial Pathogens Study Section
Organizer of International Conferences	
2016	5 th International Meeting on Salmonella Ecology and Pathogenesis, co-sponsored by ASM
2017 to 2021	Cold Spring Harbor Conference on Microbial Pathogenesis and Host Responses
Search Committees	
2015	Department of Pathology Chair Position
2015	Department of Comparative Medicine Assistant/Associate Professor Position
2018	Chair of New Faculty Search, Department of Microbiology and Immunology
Biosafety Panel Member	
2016 to 2018	Member of Stanford University Biosafety Panel. Attend and vote at Monthly Meetings.
Appointments and Reappointments Committee	
2012 to 2018	Member of Stanford Medical School Committee that votes on appointments and reappointments of faculty in the Medical School and University Tenure Track Lines.
Training Grants	
2012-2017	Director, Graduate Admissions Program, Department of Microbiology and Immunology, Stanford University School of Medicine
2018 to 2023	PI of Department of Microbiology and Immunology T32 Training Grant

D. POST-DEGREE HONORS AND AWARDS, INCLUDING MEMBERSHIPS IN PROFESSIONAL SOCIETIES

MEMBERSHIP

1992 to present	Member, American Society for Microbiology
2010 to present	Member, American Association of Immunologists

HONORS

2008	Baxter Faculty Scholar, Donald E. and Delia B. Baxter Foundation
2008	Terman Fellow, Stanford University School of Medicine
2009	The Burroughs Wellcome Fund Recipient
2010	Society of Leukocyte Biology G.J. Thorbecke Award
2012	Stanford University Postdoc Association Mentor Award
2015	Chair-elect for Division B, American Society of Microbiologists
2015	American Academy of Microbiology Fellow
2016	Elected Chair for Division B, American Society for Microbiology
2018	Max Planck Sabbatical Award
2020	Elected Governor, American Academy of Microbiology

E. BIBLIOGRAPHY

Peer-Reviewed Original Articles (109 total)

1. Stibitz, S., W. Aaronson, **D. Monack** and S. Falkow. 1988. The vir locus and phase-variation in *Bordetella pertussis*. J. Exp. Clin. Med. 13(Suppl):223-226.
2. Arico, B., J.F. Miller, C. Roy, S. Stibitz, **D. Monack**, S. Falkow, R. Gross, and R. Rappuoli. 1989. Sequences required for expression of *Bordetella pertussis* virulence factors share homology with prokaryotic signal transduction proteins. Proc. Natl. Acad. Sci., U.S.A. 86:6671-5.
3. **Monack, D.M.**, B. Arico, R. Rappuoli and S. Falkow. 1989. Phase variants of *Bordetella bronchiseptica* arise by spontaneous deletions in the vir locus. Mol. Microbiol. 3:1719-1728.
4. **Monack, D.**, J.J. Munoz, M.G. Peacock, W.J. Black and S. Falkow. 1989. Expression of pertussis toxin correlates with pathogenesis in *Bordetella* species. J. Infect. Dis. 159(2): 205-210.
5. Stibitz, S., W. Aaronson, **D. Monack** and S. Falkow. 1989. Phase variation in *Bordetella pertussis* by frameshift mutation in a gene for a novel two-component system. Nature. 338(6212): 266-269.
6. Arico, B., V. Scarlato, **D.M. Monack**, and S. Falkow. 1991. Structural and genetic analysis of the *bvg* locus in *Bordetella* species. Mol. Microbiol. 5:2481-2491.
7. Akerley, B.J., **D.M. Monack**, S. Falkow, and J.F. Miller. 1992. The *bvgAS* locus negatively controls motility and synthesis of flagella in *Bordetella bronchiseptica*. J. Bacteriol. 174:980-990.
8. **Monack, D.M.** and S. Falkow. 1993. Cloning of *Bordetella bronchiseptica* urease genes and analysis of colonization by a urease-negative mutant strain in a guinea-pig model. Mol. Microbiol. 10:545-553.
9. Pascopella, L., B., Raupach, N. Ghori, **D. Monack**, S. Falkow, and P.L.C. Small. 1995. Host restriction phenotypes of *Salmonella typhi* and *Salmonella gallinarum*. Infect. Immun. 63:4329-4335.
10. **Monack, D.M.**, B. Raupach, A.E. Hromockyj, and S. Falkow. 1996. *Salmonella typhimurium* invasion induces apoptosis in infected macrophages. Proc. Natl. Acad. Sci., U.S.A. 93:9833-9838.
11. Valdivia, R.H., A.E. Hromockyj, **D. Monack**, L. Ramakrishnan, and S. Falkow. 1996. Applications for green fluorescent protein (GFP) in the study of host-pathogen interactions. Gene. 173:47-52.
12. Hensel, M., J.E. Shea, B. Raupach, **D. Monack**, S. Falkow, C. Gleeson, T. Kubo, and D.W. Holden. 1997. Functional analysis of *ssaJ* and the *ssaK/U* operon, 13 genes encoding components of the type III secretion apparatus of *Salmonella* pathogenicity island 2. Mol. Microbiol. 24:155-167.
13. **Monack, D.M.**, J. Meccas, N. Ghori, and S. Falkow. 1998. *Yersinia* signals macrophages to undergo apoptosis and YopJ is necessary for this cell death. Proc. Natl. Acad. Sci, USA 94:10385-90.

14. Cirillo, D.M., R.H. Valdivia, **D.M. Monack**, and S. Falkow. 1998. Macrophage-dependent induction of the *Salmonella* pathogenicity island 2-type III secretion system and its role in intracellular survival. *Mol. Microbiol.* 30:175-88.
15. **Monack, D.M.**, J. Meccas, D. Bouley, and S. Falkow. 1998. *Yersinia*-induced apoptosis in vivo aids in the establishment of a systemic infection of mice. *J. Exp. Med.* 188:2127-37.
16. Hersch, D., **D.M. Monack**, M.R. Smith, N. Ghori, S. Falkow and A. Zychlinski. 1999. The *Salmonella* invasin SipB induces macrophage apoptosis by binding to caspase-1. *Proc. Natl., Acad. Sci. U.S.A.*, 96:2396-401.
17. **Monack, D.** and S. Falkow. 2000. Apoptosis as a common bacterial virulence strategy. *Int. J. Med. Microbiol.* 290:7-13.
18. **Monack, D.M.**, D. Hersh, N. Ghori, D. Bouley, A. Zychlinsky, and S. Falkow. 2000 *Salmonella* exploits caspase-1 to colonize Peyer's patches in a murine typhoid model. *J. Exp. Med.* 192:249-58.
19. Robbins, J.R., **D. Monack**, S.J. McCallum, A. Vegas, E. Pham, M.B. Goldberg, and J.A. Theriot. 2001. The making of a gradient: IcsA (VirG) polarity in *Shigella flexneri*. *Mol. Microbiol.* 41:861-72.
20. **Monack, D.** and J. Theriot. 2001. Actin-based motility is sufficient for bacterial membrane protrusion formation and host cell uptake. *Cell. Microbiol.* 3:633-47.
21. **Monack, D.**, W. Navarre, and S. Falkow. 2001. *Salmonella*-induced macrophage death: the role of caspase-1 in death and inflammation. *Microbes Infect.* 3:1201-12.
22. **Monack, D.**, C.S. Detweiler, and S. Falkow. 2001. *Salmonella* pathogenicity island 2-dependent macrophage death is mediated in part by the host cysteine protease caspase-1. *Cell. Microbiol.* 3:825-327.
23. Catron, D.M., M.D. Sylvester, Y. Lange, M. Kadekoppala, B.D. Jones, **D.M. Monack**, S. Falkow, and K. Haldar. 2002. The *Salmonella*-containing vacuole is a major site of intracellular cholesterol accumulation and recruits the GPI-anchored protein CD55. *Cell. Microbiol.* 4:315-328.
24. Detweiler, C.S., **D.M. Monack**, I.E. Brodsky, H. Mathew, and S. Falkow. 2003. virK, somA and rcsC are important for systemic *Salmonella enterica* serovar Typhimurium infection and cationic peptide resistance. *Mol. Microbiol.* 48:385-400.
25. Kim, C.C., **D. Monack**, and S. Falkow. 2003. Modulation of virulence by two acidified nitrite-responsive loci of *Salmonella enterica* serovar Typhimurium. *Infect. Immun.* 71:3196-3205.
26. **Monack, D.M.**, D.M. Bouley, and S. Falkow. 2004. *Salmonella typhimurium* persists within macrophages in the mesenteric lymph nodes of chronically infected *Nramp1^{+/+}* mice and can be reactivated by IFN γ neutralization. *J. Exp. Med.* 199:231-241.
27. Mariathasan, S., K. Newton, **D.M. Monack**, D. Vucic, D.M. Franch, W.P. Lee, M. Roose-Girma, S. Erickson, V.M. Dixit. 2004. Differential activation of the inflammasome by caspase-1 adaptors ASC and Ipaf. *Nature* 430:213-8.
28. **Monack, D.M.**, A. Mueller, and S. Falkow. 2004. Persistent bacterial infections: the interface of the pathogen and the host immune system. *Nat. Rev. Microbiol.* 2:747-765.
29. **Monack, D.M.**, D.M. Bouley, and S. Falkow. 2004. *Salmonella typhimurium* persists within macrophages in the mesenteric lymph nodes of chronically infected *Nramp1^{+/+}* mice and can be reactivated by IFN γ neutralization. *J. Exp. Med.* 199:231-241.
30. Zhou, H., **D.M. Monack**, N. Kayagaki, I. Wertz, J. Yin, B. Wolf, and V.M. Dixit. 2005. *Yersinia* virulence factor YopJ acts as a deubiquitinase to inhibit NF-kappa B activation. *J. Exp. Med.* 202:1327-32.
31. Mariathasan, S., D.S. Weiss, K. Newton, J. McBride, K. O'Rourke, M. Roose-Girma, W.P. Lee, Y. Weinrauch, **D.M. Monack**, and V.M. Dixit. 2006. Cryopyrin activates the inflammasome in response to toxins and ATP. *Nature.* 440:228-32.
32. Brodsky, I.E., N. Ghori, S. Falkow, and **D. Monack**. 2005. Mig-14 is an inner membrane-associated protein that promotes *Salmonella typhimurium* resistance to CRAMP, survival within activated macrophages and persistent infection. *Mol. Microbiol.* 55:954-972.
33. Mariathasan, S., D. Weiss, V. Dixit, and **D. Monack**. 2005. Innate immune defense against *Francisella tularensis* requires the ASC/caspase-1 axis. *J. Exp. Med.* 202:1043-1049.
34. Lawley, T.D., K. Chan, L.J. Thompson, C.C. Kim, G.R. Govoni, and **D.M. Monack**. 2006. Genome-wide screen for *Salmonella* genes required for long-term systemic infection of the mouse. *PLoS Pathog.* Feb;2(2):e11. Epub Feb 24.
35. Raupach, B., S.K. Peuschel, **D.M. Monack** and A. Zychlinsky. 2006. Caspase-1-mediated activation of interleukin-1beta (IL-1beta) and IL-18 contributes to innate immune defenses against *Salmonella enterica*

- serovar Typhimurium infection. *Infect. Immun.* 74:4922-6.
36. Brotcke, A., D.S. Weiss, C.C. Kim, P. Chain, S. Malfatti, E. Garcia and **D.M. Monack**. 2006. Identification of MglA-regulated genes reveals novel virulence factors in *F. tularensis*. *Infect. Immun.* 74(12):6642-55.
 37. Mariathasan, S. and **D.M. Monack**. 2007. Inflammasome adaptors and sensors: intracellular regulators of infection and inflammation. *Nat. Rev. Immunol.* 7:31-40.
 38. Weiss, D.S., A. Brotcke, T. Henry, J.J. Margolis, K. Chan and **D.M. Monack**. 2007. In vivo negative selection screen identifies genes required for *Francisella* virulence. *Proc. Natl. Acad. Sci. USA.* 104:6037-42.
 39. Weiss, D.S., T. Henry, and **D.M. Monack**. 2007. *Francisella tularensis*: Activation of the inflammasome. *Ann. N.Y. Acad. Sci.* 1105:219-37.
 40. Henry, T., A. Brotcke, D.S. Weiss, L.J. Thompson and **D.M. Monack**. 2007. Type I interferon signaling is required for activation of the inflammasome during *Francisella* infection. *J. Exp. Med.* 204:987-94.
 41. Henry, T. and **D.M. Monack**. 2007. Activation of the inflammasome upon *Francisella tularensis* infection: Interplay of innate immune pathways and virulence factors. *Cell. Microbiol.* 9:2543-51.
 42. Lawley, T.D., D.M. Bouley, Y.E. Hoy, C. Gerke, D.A. Relman and **D.M. Monack**. 2007. Host transmission of *Salmonella enterica* serovar Typhimurium is controlled by virulence factors and the indigenous intestinal microbiota. *Infect. Immun.* 76(1):403-16.
 43. Brotcke, A. and **Monack, D.M.** 2008. Identification of fevR, a novel regulator of virulence gene expression in *Francisella*. *Infect. Immun.* 76(8):3473-80.
 44. Lightfield, K.L., J. Persson, S.W. Brubaker, C.E. Witte, J. von Moltke, E.A. Dunipace, T. Henry, Y.H. Sun, D. Cado, W.F. Dietrich, **D.M. Monack**, R.M. Tsolis, and R.E. Vance. 2008. Critical function for Naip5 in inflammasome activation by a conserved carboxy-terminal domain of flagellin. *Nat. Immunol.* 9:1171-8.
 45. **Monack, D.M.** 2008. The inflammasome: a key player in the inflammation triggered in response to bacterial pathogens. *J. Pediatr. Gastroenterol. Nutr.* 46 Suppl 1:E14.
 46. Winter, S.E., P. Thiennimitr, S.P. Nuccio, T. Haneda, M.G. Winter, R.P. Wilson, J.M. Russell, T. Henry, Q.T. Tran, S.D. Lawhon, G. Gomez, C.L. Bevins, H. Russmann, **D.M. Monack**, L.G. Adams, and A.J. Baumler. 2009. Contribution of flagellin pattern recognition to intestinal inflammation during *Salmonella enterica* serotype typhimurium infection. *Infect. Immun.* 77:1904-16.
 47. El-Etr, S.H., J.J. Margolis, **D. Monack**, R.A. Robison, M. Cohen, E. Moore, and A. Rasley. 2009. *Francisella tularensis* type A strains cause the rapid encystment of *Acanthamoeba castellanii* and survive in amoebal cysts for three weeks postinfection. *Appl. Environ. Microbiol.* 75:7488-500.
 48. McLaughlin, L.M., G.R. Govoni, C. Gerke, S. Gopinath, K. Peng, G. Laidlaw, Y.H. Chien, H.W. Jeong, Z. Li, M.D. Brown, D.B. Sacks, and **D. Monack**. 2009. The *Salmonella* SPI2 effector Ssel mediates long-term systemic infection by modulating host cell migration. *PLoS Pathog.* 5:e1000671.
 49. Margolis J.J., S. El-Etr, L.M. Joubert, E. Moore, R. Robison, A. Rasley, A.M. Spormann, and **D.M. Monack**. 2009. *Francisella tularensis* subspecies *novicida* chitinases and Sec secretion system contribute to biofilm formation on chitin. *Appl. Environ. Microbiol.* 76(2):596-608.
 50. Thompson, L.J., S.J. Dunstan, C. Dolecek, T. Perkins, D. House, G. Dougan, T.H. Nguyen, T.P. Tran, C. D. Doan, T.P. Le, T.D. Nguyen, T.H. Tran, J.J. Farrar, **D. Monack**, D.J. Lynn, S.J. Popper, and S. Falkow. 2009. Transcriptional response in the peripheral blood of patients infected with *Salmonella enterica* serovar Typhi. *Proc. Natl. Acad. Sci. U.S.A.* 106:22433-8.
 51. Ghosn, E.E., A.A. Cassado, G.R. Govoni, T. Fukuhara, Y. Yang, **D.M. Monack**, K.R. Bortoluci, S.R. Almeida, and L.A. Herzenberg. 2010. Two physically, functionally, and developmentally distinct peritoneal macrophage subsets. *Proc. Natl. Acad. Sci. U.S.A.* 107:2568-73.
 52. Henry, T., G.S. Kirimanjeswara, T. Ruby, J.W. Jones, K. Peng, M. Perret, L. Ho, J.D. Sauer, Y. Iwakura, D.W. Metzger, and **D.M. Monack**. 2010. Type I IFN signaling constrains IL-17A/F secretion by gammadelta T cells during bacterial infections. *J. Immunol.* 184:3755-67.
 53. Jones, J.W., N. Kayagaki, P. Broz, T. Henry, K. Newton, K. O'Rourke, S. Chan, J. Dong, Y. Qu, M. Roose-Girma, V.M. Dixit, and **D.M. Monack**. 2010. Absent in melanoma 2 is required for innate immune recognition of *Francisella tularensis*. *Proc. Natl. Acad. Sci. U.S.A.* 107(21):9771-6.
 54. Peng, K. and **D.M. Monack**. 2010. Indoleamine 2,3-dioxygenase 1 is a lung-specific innate immune defense mechanism that inhibits growth of *Francisella tularensis* tryptophan auxotrophs. *Infect. Immun.* 78(6):2723-33.
 55. Broz, P., K. Newton, M. Lamkanfi, S. Mariathasan, V.M. Dixit and **D.M. Monack**. 2010. Redundant roles

- for inflammasome receptors NLRP3 and NLRC4 in host defense against *Salmonella*. *J. Exp. Med.* 207(8):1745-55.
56. Moule, M.G., **D.M. Monack**, and D.S. Schneider. 2010. Reciprocal analysis of *Francisella novicida* infections of a *Drosophila melanogaster* model reveal host-pathogen conflicts mediated by reactive oxygen and imd-regulated innate immune response. *PLoS Pathog.* 6: e1001065.
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 58. Broz, P., J. von Moltke, J.W. Jones, R.E. Vance, and **D.M. Monack**. 2010. Differential requirement for Caspase-1 autoproteolysis in pathogen-induced cell death and cytokine processing. *Cell Host Microbe* 8:471-483.
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 60. Chin, C.Y., **D.M. Monack**, and S. Nathan. 2010. Genome wide transcriptome profiling of a murine acute melioidosis model reveals new insights into how *Burkholderia pseudomallei* overcomes host innate immunity. *BMC Genomics.* 11:672.
 61. Belhocine, K. and **D.M. Monack**. 2011. *Francisella* infection triggers activation of the AIM2 inflammasome in murine dendritic cells. *Cell. Microbiol.* Sep 9. doi: 10.1111/j.1462-5822.2011.01700.x.
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 63. Alegado, R.A., C.Y. Chin, **D.M. Monack**, and M.W. Tan. 2011. The Two-component sensor kinase KdpD is required for *Salmonella typhimurium* colonization of *Caenorhabditis elegans* and survival in macrophages. *Cell. Microbiol.* Jul 25. 13(10):1618-37.
 64. Reif, K.E., G.H. Palmer, M.W. Ueti, G.A. Scoles, J.J. Margolis, **D.M. Monack**, and S.M. Noh. 2011. Dermacentor andersoni transmission of Francisella tularensis subsp. novicida reflects bacterial colonization, dissemination and replication coordinated with tick feeding. *Infect. Immun.* Sep 19.
 65. **Monack, D.M.** 2011. Immunology: recognition of a unique partner. *Nature.* 477(7366):543-4.
 66. Chin, C.Y., **Monack, D.M.**, Nathan, S. 2011. Delayed activation of host innate immune pathways in streptozotocin-induced diabetic hosts leads to more severe disease during infection with *Burkholderia pseudomallei*. *Immunology.* Epub ahead of print.
 67. Puri AW, Broz P, Shen A, **Monack D.M.**, Bogyo M. 2012. Caspase-1 activity is required to bypass macrophage apoptosis upon Salmonella infection. *Nat Chem Biol.* Jul 15. doi: 10.1038/nchembio.1023. PMID: 22797665
 68. Broz P, Ruby T, Belhocine K, Bouley DM, Kayagaki N, Dixit VM, **Monack D.M.**. 2012. Caspase-11 increases susceptibility to Salmonella infection in the absence of caspase-1. *Nature.* Aug 15. doi: 10.1038. NIHMS394885
 69. Gomez JA, Wapinski OL, Yang YW, Bureau JF, Gopinath S, **Monack D.M.**, Chang HY, Brahic M, Kirkegaard K. 2013 The NeST long ncRNA controls microbial susceptibility and epigenetic activation of the interferon-gamma locus. *Cell.*152(4):743-54. PMID: 3577098.
 70. Xiao, J., Broz, P., Puri, A.W., Deu, E., Morell, M., **Monack, D.M.**, and Bogyo, M. 2013. A coupled protein and probe engineering approach for selective inhibition and activity-based probe labeling of the caspases. *J Am Chem Soc*, **135**(24): p. 9130-8.
 71. Gopinath S, Hotson A, Johns J, Nolan G, **Monack D.M.** 2013. The Systemic Immune State of Super-shedder Mice Is Characterized by a Unique Neutrophil-dependent Blunting of TH1 Responses. *PLoS pathogens.* 9(6):e1003408.
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 73. Eisele NA, Ruby T, Jacobson A, Manzanillo PS, Cox JS, Lam L, Makundan L, Chawla A, **Monack D.M.** 2013. Persistent Salmonella infection is controlled by PPAR δ , a host regulator of fatty acid metabolism. *Cell Host and Microbe.* **14**(2): p. 171-82.
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- Choudhury, B., Weimer, B.C., **Monack, D.M.**, and Sonnenburg, J.L. 2013. Microbiota-liberated host sugars facilitate post-antibiotic expansion of enteric pathogens. *Nature*, Oct 3;502(7469):96-9
75. O'Donnell H, Pham OH, Li LX, Atif SM, Lee SJ, Ravesloot MM, Stolfi JL, Nuccio SP, Broz P, **Monack D.M.**, Baumler AJ, McSorley SJ. 2014. Toll-like receptor and inflammasome signals converge to amplify the innate bactericidal capacity of T helper 1 cells. *Immunity*. Feb 20;40(2):213-24.
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92. Napier BA, **Monack D.M.** Creating a RAW264.7 CRISPR-Cas9 Genome Wide Library. *Bio Protoc*. 2017;7(10). Epub 2017/09/05. doi: 10.21769/BioProtoc.2320. PubMed PMID: 28868328; PMCID: PMC5580966.
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Reviews

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2. **Monack, D.M.**, W.W. Navarre, and S. Falkow. 2001. *Salmonella*-induced macrophage death: the role of caspase-1 in death and inflammation. *Microbes Infect.* 3:1201-1212.
3. **Monack, D.M.**, A. Mueller, and S. Falkow. 2004. Persistent bacterial infections: the interface of the pathogen and the host immune system. *Nat. Rev. Microbiol.* 2:747-765.
4. Mariathasan S. and **D.M. Monack**. 2007. The inflammasome recognition of bacterial pathogens. *Nat. Rev. Immunol.* 7: 31-40.
5. Brodsky, I.E., and **Monack, D.M.**. 2009. NLR-mediated control of inflammasome assembly in the host response against bacterial pathogens. *Semin. Immunol.* 21(4):199-207.
6. Jones, J.W., P. Broz and **Monack, D.M.**. 2011. Innate immune recognition of *Francisella tularensis*: activation of type-I interferons and the inflammasome. *Front. Microbiol.* 2:16. Epub 2011 Feb 3.
7. Broz, P. and **D. Monack, D.M.**. 2011. Molecular mechanisms of inflammasome activation during microbial infections. *Immunol. Rev.* 243: 174-190.
8. Broz, P., M. Ohlson, **Monack D.M.** 2011. Innate immune response to *Salmonella typhimurium*, a model enteric pathogen. *Gut Microbes.* 1:2-6.
9. **Monack, D.M.** 2012. *Salmonella* persistence and transmission strategies. *Curr Opin Microbiol.* 15: 100-107.
10. Ruby T, L. McLaughlin, S. Gopinath, **Monack D.M.** 2012. *Salmonella's* long-term relationship with its host. *FEMS Microbiol Rev.* 36:600-615.
11. Gopinath, S., S. Carden, **Monack D.M.** 2012. Shedding light on *Salmonella* carriers. *Trends in Microbiology*. Epub ahead of print.
12. Ng, T.M., Kortmann, J., and **Monack, D.M.**, Policing the cytosol--bacterial-sensing inflammasome receptors and pathways. *Curr Opin Immunol*, 2013. **25**(1): p. 34-9.
13. Broz, P. and **Monack, D.M.**, Noncanonical inflammasomes: caspase-11 activation and effector mechanisms. *PLoS Pathog*, 2013. **9**(2): p. e1003144.
14. Broz, P. and **Monack, D.M.**, Newly described pattern recognition receptors team up against intracellular pathogens. *Nat Rev Immunol*, 2013. **13**(8): p. 551-65.
15. Ng, T.M. and Monack, D.M., Revisiting caspase-11 function in host defense. *Cell Host Microbe*, 2013. **14**(1): p. 9-14.
16. Monack DM. The battle in the gut. *Immunity*. 2014 Feb 20;40(2):173-5
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18. Sana TG, Voulhoux R, **Monack DM**, Ize B, Bleves S. Editorial: Protein Export and Secretion Among Bacterial Pathogens. *Front Cell Infect Microbiol*. 2019;9:473. Epub 2020/02/11. doi: 10.3389/fcimb.2019.00473. PubMed PMID: 32039049; PMCID: PMC6987241.

19. Brewer SM, Brubaker SW, **Monack DM**. Host inflammasome defense mechanisms and bacterial pathogen evasion strategies. *Curr Opin Immunol*. 2019;60:63-70. Epub 2019/06/08. doi: 10.1016/j.coi.2019.05.001. PubMed PMID: 31174046.

Book Chapters

1. Weiss, D., T. Henry and **D.M. Monack**. "Tularemia: *Francisella tularensis* activation of the inflammasome." 2007. In: *Francisella tularensis: Biology, Pathogenicity, Epidemiology, and Biodefense*. Editors, Kwaik, Y.A., D.W. Metzger, F. Nano, A. Sjostedt, and R. Titball, Ann. N.Y. Acad. Sci..
2. **Monack D.M.** "Intracytosolic Sensing of Pathogens: Nucleic Acid Receptors, NLRs, and the Associated Responses during Infections and Autoinflammatory Diseases." 2009. In: *Phagocyte-Pathogen Interactions*. Editors, Gordon S. and D. Russell.
3. Broz, P. and Monack, D.M., Measuring inflammasome activation in response to bacterial infection. *Methods Mol Biol*, 2013. **1040**: p. 65-84.
4. Monack, D.M. "Helicobacter and salmonella persistent infection strategies." 2013. In: *Cold Spring Harb Perspect Med*. 3(12):a010348.

Editor of Special Journal Issues

1. **Monack, D.M.** and Hultgren, S.J., The complex interactions of bacterial pathogens and host defenses. *Curr Opin Microbiol*, 2013. **16**(1): p. 1-3.
2. Monack DM, Brodsky IE. Editorial overview: The fortunate students, a tribute to the fortunate professor. *Curr Opin Microbiol*. 2020;54:iii-vi. Epub 2020/03/17. doi: 10.1016/j.mib.2020.02.001. PubMed PMID: 32171689.

Abstracts (Too many to list. A representative selection.)

1. American Society for Microbiology General Meeting, Atlanta, GA. May 11, 1993. Poster abstract, "Cloning of *Bordetella bronchiseptica* urease genes and analysis of colonization by a urease-negative mutant strain in a guinea pig model".
2. American Society for Microbiology General Meeting, New Orleans, LA. May 9, 1996. Poster abstract, "*Salmonella* invasion triggers apoptosis in macrophages."
3. American Society for Microbiology General Meeting. Miami, FL. May 4, 1997. Poster abstract #B199, "*Yersinia* signal murine macrophages to undergo apoptosis".
4. Stanford Campus Report, May 1997 article entitled "Microbial guests induce host cell suicide" which was written by a staff writer on current research project.

Invited Presentations by Year

- 1996** Department of Microbiology and Immunology retreat, Fallen Leaf, CA
"*Salmonella* invasion triggers apoptosis in macrophages"
- 1998** Bay Area Pathogenesis Meeting, San Francisco, CA. Invited speaker
"*Yersinia pseudotuberculosis* yopJ mutant does not induce apoptosis in macrophages and is attenuated in mice"
- Gordon Research Conference, Bacterial Pathogenesis, Proctor Academy, NH. Invited speaker
"*Yersinia*-induced apoptosis: a potential role in the murine of infection"
- 1999** Cold Spring Harbor Meeting on Bacterial Pathogenesis, Cold Spring Harbor, NY. Invited speaker
"*Salmonella* exploits caspase-1 to colonize the Peyer's patches during a murine infection"
- Department of Microbiology and Immunology Retreat, Fallen Leaf Lake, CA
"Actin-based motility is sufficient for bacterial membrane protrusions and host cell uptake"
- 2000** American Society for Microbiology General Meeting, Orlando, FL. Invited speaker
"*Salmonella* exploits caspase-1 during infection"

- 2002** Immunity and Infection Symposium, Awaji, Japan. Invited speaker
“DNA Microarrays to Understand Persistent *Salmonella* Infections”
- The Max Plank Institute, Berlin, Germany. Invited seminar speaker
“DNA Microarrays to Understand Persistent *Salmonella* Infections”
- 2004** Gordon Conference on Bacterial Pathogens and Toxins, Proctor Academy, NH. Invited speaker
“Persistent *Salmonella* Infection in the Mouse”
- 2005** Microbiology Symposium, Stanford University, Stanford, CA
“Innate Defense against *Francisella* requires the ASC/caspase-1 axis”
- UCSF Molecular Pathogenesis journal club, San Francisco, CA. Invited speaker
“*Salmonella* persistence factors”
- Foundation Merieux and the Salk Institute conference on Immune evasion strategies of human pathogens. Annecy, France
Moderator, Session: “Evasion from innate immunity”
- Oregon State University, Department of Microbiology and Immunology, Portland, OR. Invited seminar speaker.
“*Salmonella* persistence factors”
- 2006** American Society for Microbiology Biodefense Research Meeting, Washington, D.C. Session Chair
“Understanding bacterial virulence”
- ASM Biodefense Research Meeting. Washington, D.C., Invited speaker, plenary session
“*Francisella tularensis* and innate immunity”.
- American Society for Microbiology General Meeting, Orlando, FL. Invited speaker
“Intracellular replication of *Francisella tularensis*: the interface of the pathogen and innate immunity”
- University of Washington, Department of Microbiology and Immunology. Invited seminar speaker
“*Francisella tularensis* replication in macrophages: activation of the inflammasome and innate immunity”
- Cerus Corporation, Concord, CA. Invited speaker
“*Francisella tularensis* replication in macrophages: activation of the inflammasome and innate immunity”
- Second Annual Meeting of the Pacific Southwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research. Reno, NV. Invited speaker.
“*Francisella tularensis* replication in macrophages: activation of the inflammasome and innate immunity”
- 2nd ASM Conference on *Salmonella*: From Pathogenesis to Therapeutics, Victoria, BC, Canada.
Invited speaker.
“*Salmonella* persistence and transmission factors”
- University of California, Santa Cruz CA. Department of Environmental Toxicology. Invited seminar speaker
“*Francisella tularensis* pathogenesis--from bacterial genomic screens to innate immunity”
- Department of Microbiology and Immunology, Stanford University. Seminar speaker

"*Francisella tularensis* pathogenesis--from bacterial genomic screens to innate immunity"

2007 University of California, Davis CA., Invited speaker

"The interface of cytosolic *Francisella tularensis* and the innate immune system"

American Society for Microbiology General Meeting, Toronto. Invited speaker and session chair

"Type I Interferon is required for inflammasome activation during *Francisella* infection"

Gordon Research Conference--Phagocyte, Bryant University Rhode Island. Invited speaker

"Type I Interferon is required for inflammasome activation during *Francisella* infection"

FASEB Conference on Host-Pathogen Interactions, Snowmass, CO. Invited speaker

"Type I Interferon is required for inflammasome activation during *Francisella* infection"

ICAAC General Meeting, Chicago, IL. Invited speaker

"Bacterial activation of the inflammasome"

Rocky Mountain Laboratories, Hamilton, MT. Guest seminar series

"*Francisella* pathogenesis and innate immunity"

2008

University of Tennessee, Memphis TN. Invited speaker

"The interface of cytosolic *Francisella tularensis* and the innate immune system"

University of Ohio, Columbus OH. Invited speaker

"The interface of cytosolic *Francisella tularensis* and the innate immune system"

Digestive Disease Center Symposium in honor of Dr. Stanley Falkow. Invited speaker

"*Salmonella* persistence and transmission: from genetic screens to the intestinal microbiota"

Wellcome Trust Advanced Course: Molecular Basis of Bacterial Infection. Instructor

"Innate immunity and the inflammasomes"

Novartis, Siena, Italy. Invited speaker

"Innate immunity and the inflammasome"

International Endotoxin and Innate Immunity Meeting in Edinburgh, UK. Invited speaker

"*Francisella tularensis*: from genetic screens to innate immunity"

University of Texas, Southwestern. Invited speaker

"*Francisella tularensis*: from genetic screens to innate immunity"

2009

University of Victoria, B.C. Invited speaker

"*Francisella tularensis*: from genetic screens to innate immunity"

University of Virginia. Invited speaker

"*Salmonella* persistence and transmission: from genetic screens to the intestinal microbiota"

Uniformed Services University of the Health Sciences. Invited speaker

"*Salmonella* persistence and transmission: from genetic screens to the intestinal microbiota"

University of Kentucky. Invited speaker

"*Francisella* pathogenesis: from genetic screens to innate immunity"

American Society for Microbiology General Meeting. Philadelphia. Invited speaker
“*Salmonella* transmission and virulence factors”

University of California, Los Angeles. Invited speaker
“*Salmonella* persistence and transmission mechanisms”

American Society for Rickettsiology 23rd Meeting. Hilton Head Island, South Carolina. Keynote speaker
“The genetic and molecular mechanisms of intracellular bacterial pathogens, using *Salmonella* and *Francisella*, to study the complex host-pathogen interactions”

Cold Spring Harbor Meeting on Bacterial Pathogenesis, Cold Spring Harbor, NY. Invited speaker
“Inflammasome activation during infections with intracellular bacterial pathogens”

6th International Conference on Tularemia, Berlin. Invited speaker
“*Francisella* and innate immunity”

Harvard School of Public Health Immunology and Infectious Diseases Department, Boston. Invited speaker
“*Salmonella* persistence and transmission” from genetic screens to the intestinal microbiota”

West Coast Bacterial Physiologists Meeting, Asilomar. Invited speaker.
“*Salmonella* persistence is mediated by a bacterial effector that modulates phagocyte migration”

2010

Emory University School of Medicine and Emory Vaccine Center, Atlanta. Invited speaker
“*Salmonella* persistence mechanisms”

5th International Meeting on Inflammatory Bowel Disease, Capri, Italy. Invited speaker
“Bacterial infections and the inflammasome”

1st International EMBO Workshop on Emerging Themes in Infection Biology, la Colle sur Loup, France.
Invited speaker
“Intracellular lifestyle of persisting *Salmonella*”

American Society for Microbiology General Meeting. San Diego. Invited speaker
“*Salmonella* transmission and virulence factors”

Banff Conference on Infectious Diseases, Banff Canada. Invited speaker
“Innate immune recognition of intracellular bacterial pathogens”

University of Washington Pathobiology and Department of Global Health. Invited speaker
“Mechanisms of *Francisella* pathogenesis and Innate Immunity”

Society for Leukocyte Biology Meeting. Vancouver. Invited speaker
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

University of North Carolina Microbiology and Immunology Series. Invited speaker
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

2011

University of Minnesota Microbiology and Immunology Center Seminar series. Invited speaker
“At home with hostility: establishing a replicative niche in *Salmonella* persistent infection”

Toll2011 Meeting: Decoding Innate Immunity. Riva del Garda Italy. Invited speaker
“Caspase-1 processing is necessary for cytokine release by not macrophage death”

ASM Annual General Meeting, New Orleans. Plenary session on Microbial Interactions with the Immune System
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

ASM Annual General Meeting, New Orleans. Special Interest Symposia on Life in the Fire: How Inflammation Shapes Microbial Communities on Mucosal Surfaces
“Characterization of *Salmonella* Transmission”

Microbial Adhesion and Signal Transduction Gordon Research Conference, Salve Regina University, Newport, RI. Invited speaker
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

McGill University Excellence in Genetics and Immunology Seminar Series. Invited speaker
“At home with hostility: establishing a replicative niche in *Salmonella* persistent infection”

University of California, Berkeley Infectious Diseases and Microbial Pathogenesis Seminar Series. Invited speaker
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

Washington University Department of Molecular Microbiology. Invited speaker
“At home with hostility: establishing a replicative niche in *Salmonella* persistent infection”

2012

EMBO / EMBL Symposium: New Perspectives on Immunity to Infection. Heidelberg, Germany. Invited Speaker. “Recognition of intracellular bacterial pathogens by inflammasome NLRs”

University of Pennsylvania Microbiology Seminar Series. Invited Speaker
“At home with hostility: Establishing a replicative niche in *Salmonella* persistent infection”

University of Maryland Department of Cell Biology and Molecular Genetics and Program in Oncology. Invited speaker
“*Salmonella*’s Alternative Lifestyle: establishing a replicative niche in persistent infection”

EPFL Life Science International Symposium. “Global Health meets Infection Biology”. Swiss Federal Institute of Technology in Lausanne. “Mechanisms of Inflammasome Activation during Infection.”

University of Umea, Sweden. Department of Clinical Microbiology. Invited Speaker
“Recognition of intracellular bacterial pathogens by inflammasome NLRs”

2013

Keystone Symposium on Myeloid Cells: Regulation and Inflammation. Keystone Resort in Keystone, Colorado. Invited speaker. “Recognition of intracellular bacterial pathogens by inflammasome NLRs”

Midwinter Immunology Conference. Asilomar CA. Invited speaker. “*Salmonella* persistence is controlled by PPAR δ a host regulator of fatty acid metabolism”

Canadian Society of Immunology. Whistler B.C. Canada. Invited speaker. “*Salmonella* persistence is controlled by PPAR δ a host regulator of fatty acid metabolism”

American Association of Immunology. Annual Conference. Honolulu, Hawaii. Chair of session and speaker. “*Salmonella* persistence is controlled by PPAR δ a host regulator of fatty acid metabolism”

The Gut: Protection and Infection Summer Symposium. Rocky Mountain Labs. Hamilton, Montana. Organizer and Presenter. "Salmonella persistence is controlled by PPAR α a host regulator of fatty acid metabolism"

Cold Spring Harbor Meeting on Bacterial Pathogenesis, Cold Spring Harbor, NY. Invited speaker. "The Battle Within Macrophages: Mechanisms of Intracellular *Salmonella* Recognition and Evasion"

Microbiology Meeting in Natal Brazil. Invited speaker. "The Battle Within Macrophages: Mechanisms of Intracellular *Salmonella* Recognition and Evasion"

ASM Salmonella meeting. Boston, MA. "The Battle Within Macrophages: Mechanisms of Intracellular *Salmonella* Recognition and Evasion"

2014

The yin and yang of Inflammation Symposium. Invited speaker. "Mechanisms of persistent Salmonella infection"

Northwestern Feinberg School of Medicine. Department of Microbiology and Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections"

Harvard University School of Medicine. Department of Immunopathology. Invited speaker. "The yin and yang of persistent Salmonella infections"

University of Southern Alabama. Department of Microbiology and Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections"

Duke University. Department of Microbiology and Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections"

University of Washington. Department of Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections"

Gordon Conference Il Ciocco Resort in Italy. Mechanisms of Enzymes. Invited speaker. "Mechanisms of innate immune recognition of intracellular bacterial pathogens."

Cytokines Down Under Symposium. Melbourne Australia. Invited speaker. "Mechanisms of innate immune recognition of intracellular bacterial pathogens."

University of Texas A&M. Invited speaker. "The Battle Within Macrophages: Mechanisms of Intracellular *Salmonella* Recognition and Evasion"

2015

University of Colorado. Dept. of Microbiology and Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections."

Vanderbilt University. Vanderbilt Symposium on Infection and Immunology. Keynote Speaker. "The yin and yang of persistent Salmonella infections."

University of Michigan. Dept. Microbiology and Immunology. Invited speaker. "The yin and yang of persistent Salmonella infections."

University of Massachusetts. Dept. Microbiology and Immunology. Invited speaker. Mechanisms of persistent *Salmonella* infection and transmission.

University of Würzburg, Institut für Molekulare Infektionsbiologie. Invited speaker. "The yin and yang of persistent Salmonella infections."

Max Planck Institute for Infection Biology. Invited speaker. "The yin and yang of persistent *Salmonella* infections."

Monash University, Melbourne Australia. Invited speaker. Mechanisms of persistent *Salmonella* infection and transmission.

Bacpath13: Molecular Analysis of Bacterial Pathogens Conference. Plenary speaker. "The yin and yang of persistent *Salmonella* infections."

Cold Spring Harbor Microbial Pathogenesis and Host Responses Conference. Invited speaker. "Mechanisms of persistent *Salmonella* infections."

Brazilian Society for Immunology (SBI) will organize the 40th annual meeting of the society. Invited speaker. Identification of host factors that impact Caspase-11: A new role for complement pathway.

University of Chicago. Microbiology Department. Invited speaker. Mechanisms of persistent *Salmonella* infection and transmission.

Cell Symposia: Cell Death and Immunity. Invited speaker. Identification of host factors that impact Caspase-11: A new role for complement pathway.

University of California, Merced. Molecular and Cell Biology Unit School of Natural Sciences. Invited speaker. Mechanisms of persistent *Salmonella* infection and transmission.

New York University, Microbiology and Immunology Department. Invited speaker. Mechanisms of persistent *Salmonella* infection and transmission.

Harvard University, Immunology Program. Invited speaker. Tug-of-war between *Salmonella* and the innate immune system.

2016

University of Virginia, Department of Medicine, Keynote Presentation. Mechanisms of *Salmonella* Persistence and Transmission.

Mexican Congress of Immunology in Zacatecas, Mexico, Keynote Presentation. Tug-of-war between *Salmonella* and the innate immune system.

University of Texas, Southwestern. Keynote Presentation for Immunology Program Retreat. Mechanisms of *Salmonella* Persistence and Transmission.

Yale University. Invited speaker. Mechanisms of *Salmonella* Persistence and Transmission.

2017

Banff Keystone Symposia on Pattern Recognition Signaling. Invited speaker. The role of complement in caspase-11 activation and sepsis.

NIAID workshop on Single Cell Technology for Infectious Disease. Invited speaker. Analysis of pathogen infections at a single cell level by live microscopy.

Cincinnati Children's Hospital. Invited speaker. Mechanisms of *Salmonella* persistence and transmission.

ASM Microbe General Meeting. New Orleans. Symposium organizer: Bacterial warfare on the host battlefield. Presenter in this symposium. The battle between bacterial pathogens and commensals for gut niches.

2018

Gordon Research Conference Microbial Adhesion & Signal Transduction. Salmonella effector loss accelerates pathogen dissemination through the gut.

University of California, San Francisco. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Novartis, Emeryville. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Rosalind Franklin University, Chicago. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Banff Keytone Symposia on Microbiome, Host Resistance and Disease. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Children's Hospital Philadelphia Pennsylvania. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

University of Miami. Keynote Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Wind River Conference on Bacterial Pathogenesis. Keynote Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

École Polytechnique Fédérale de Lausanne. Invited speaker. Salmonella-Microbiota interactions in the gut and their impact on transmission.

Max Planck Symposium for Directors of The Biology and Medicine Sections. Presented with Max Planck Sabbatical Award and Invited speaker: Uncovering mechanisms of invasion of a healthy gut ecosystem by an intestinal pathogen.

University of Massachusetts. Invited speaker. Mechanisms of Salmonella persistence.

University of Texas Southwestern. Invited speaker. Uncovering mechanisms of invasion of a healthy gut ecosystem by an intestinal pathogen.

2019

13th Annual Salk Institute/Fondation IPSEN/Science Symposium on Biological Complexity: Microbes with the Host in health and disease. Invited Speaker. Salmonella-microbiome interactions in the gut and their impact on transmission.

Keystone meeting on Myeloid Cells. Santa Fe New Mexico. Invited speaker. *Salmonella* SteE drives alternative granuloma macrophage polarization to overcome TNF-mediated pathogen restriction in persistent infection.

Gordon Conference. Salmonella biology and Pathogenesis. Invited speaker. *Salmonella* SteE drives alternative granuloma macrophage polarization to overcome TNF-mediated pathogen restriction in persistent infection.

Boston Bacterial Meeting. Harvard Main Campus. Invited Keynote Speaker. Mechanisms of Salmonella Persistence in the gut and in systemic granulomas.

Distinguished Lecturer. Kansas State University. Invited Speaker. Salmonella-microbiome interactions in the gut and their impact on transmission.

2020 University of Virginia. Invited speaker. Mechanisms of Salmonella persistence in the gut and in granuloma macrophages.

Pasteur Institute, Paris France. Invited speaker. Mechanisms of Salmonella persistence in the gut and in granuloma macrophages.

2021 Keystone Symposium: Harnessing the Microbiome for Disease Prevention and Therapy. Virtual