

Experimental papers

- 26 Däullary T*, Imdahl F*, Dietrich O, Hepp L, Krammer T, Fey C, Neuhaus W, Metzger M, Vogel J, **Westermann AJ**, Saliba A-E, Zdzieblo D (2023)
A primary cell-based in vitro model of the human small intestine reveals host Olfactomedin-4 induction in response to Salmonella Typhimurium infection
Gut Microbes 15(1):2186109
- 25 Jiao C, Reckstadt C, König F, Homberger C, Yu J, Vogel J, **Westermann AJ**, Sharma CM, Beisel CL (2023)
Programmable RNA recording in single living cells
Nature Biotechnology doi: 10.1038/s41587-022-01604-8 Online ahead of print
- 24 Schuster E-M, Epple MW, Bremser A, Lucht K, Zimmermann J, Polyzou A, Ballabio A, Trompouki E, Vogel J, Büscher J, **Westermann AJ**, Rambold AS (2022)
TFEB induces mitochondrial itaconate synthesis to suppress bacterial growth in macrophages
Nature Metabolism 4(7):856-866
- 23 Prezza G*, Ryan D*, Mädler G, Reichardt S, Barquist L*, **Westermann AJ*** (2022)
Comparative genomics provides structural and functional insights into Bacteroides RNA biology
Molecular Microbiology 117(1):67-85
- 22 Fulde M*, van Vorst K*, Zhang K, **Westermann AJ**, Busche T, Huei YC, Welitschanski K, Froh I, Pägelow D, Plendl J, Pfarrer C, Kalinowski J, Vogel J, Valentin-Weigand P, Hensel M, Tedin K, Repnik U, Hornef MW (2021)
SPI2 T3SS effectors facilitate enterocyte apical to basolateral transmigration of Salmonella containing vacuoles in vivo
Gut Microbes 13(1):1973836
- 21 Santos SC, Bischler T, **Westermann AJ***, Vogel J* (2021)
MAPS integrates overlooked regulation of actin-targeting effector SteC into the virulence control network of Salmonella small RNA PinT
Cell Reports 34(5):108722
[Recommended in Faculty Opinions as being of special significance in its field](#)
- 20 Venturini E, Svensson SL, Maaß S, Gelhausen R, Eggenhofer F, Li L, Cain AK, Parkhill J, Becher D, Backofen R, Barquist L*, Sharma CM*, **Westermann AJ***, Vogel J* (2020)
A global data-driven census of Salmonella small proteins and their potential functions in bacterial virulence
microLife 1(1):uqaa002
- 19 Seelbinder B*, Wallstabe J*, Marischen L*, Weiss E, Wurster S, Page L, Löffler C, Bussemer L, Schmitt A-L, Wolf T, Linde J, Cicin-Sain L, Becker J, Kalinke U, Vogel J, Panagiotou G, Einsele H, **Westermann AJ***, Schäuble S*, Löffler J* (2020)
Triple RNA-seq reveals synergy in a human virus-fungus co-infection model
Cell Reports 33(7):108389
- 18 Hennessen F, Miethke M, Zaburanyi N, Herrmann J, Loose M, Lukežič T, Hüttel S, Jansen R, Schmiedel J, Imirzalioglu C, Vogel J, **Westermann AJ**, Hesterkamp T, Stadler M, Wagenlehner F, Petković H, Müller R (2020)
Amidochelocardin overcomes resistance mechanisms exerted on tetracyclines and natural chelocardin
Antibiotics 9(9):E619
- 17 Ryan D, Jenniches L, Reichardt S, Barquist L, **Westermann AJ** (2020)
A high-resolution transcriptome map identifies small RNA regulation of metabolism in the gut microbe Bacteroides thetaiotaomicron
Nature Communications 11(1):3557
[HZI 'Paper of the Month' August 2020](#)
- 16 Mika-Gospodorz B*, Giengkam S*, **Westermann AJ**, Wongsantichon J, Kion-Crosby W, Chuenklin S, Wang LC, Sunyakumthorn P, Sobota RM, Subbian S, Vogel J, Barquist L, Salje J (2020)
Dual RNA-seq provides insight into the biology of the neglected intracellular human pathogen Orientia tsutsugamushi
Nature Communications 11(1):3363
- 15 Prezza G, Heckel T, Dietrich S, Homberger C, **Westermann AJ***, Vogel J* (2020)
Improved bacterial RNA-seq by Cas9-based depletion of ribosomal RNA reads
RNA 26(8):1069-1078
- 14 Schulte LN*, Schweinlin M*, **Westermann AJ**, Janga H, Santos SC, Appenzeller S, Walles H, Vogel J, Metzger M (2020)
An advanced human intestinal co-culture model reveals compartmentalized host and pathogen strategies during Salmonella infection
mBio 11(1): e03348-19
- 13 Martins Gomes SF, **Westermann AJ**, Sauerwein T, Hertlein T, Förstner KU, Ohlsen K, Metzger M, Shusta EV, Kim BJ, Appelt-Menzel A, Schubert-Unkmeir A (2019)
Induced pluripotent stem cell-derived brain endothelial cells as a cellular model to study Neisseria meningitidis infection
Frontiers Microbiology 10:1181
- 12 **Westermann AJ**, Venturini E, Sellin ME, Förstner KU, Hardt W-D, Vogel J (2019)

The major RNA-binding protein ProQ impacts virulence gene expression in *Salmonella* Typhimurium
mBio 10(1): e02504-18

- 11 Stapels DAC, Hill PWS, **Westermann AJ**, Fisher R, Thurston TL, Saliba A-E, Blommestein I, Vogel J, Helaine S (2018)
Salmonella persists undermine host immune defences during antibiotic treatment
Science 362(6419):1156-1160
[Covered by In Brief in Nature Reviews Microbiology 17,65-65](#)
- 10 Simon LM, Karg S, **Westermann AJ**, Engel M, Elbeheri AHA, Hense B, Heinig M, Deng L, Theis FJ (2018)
MetaMap: An atlas of metatranscriptomic reads in human disease-related RNA-seq data
GigaScience 101093/gigascience/gy070
- 9 El Mouali Y, Gaviria-Cantin T, Sánchez-Romero MA, Gibert M, **Westermann AJ**, Vogel J, Balsalobre C (2018)
CRP-cAMP mediates silencing of Salmonella virulence at the post-transcriptional level
PLoS Genetics 14(6):e1007401
- 8 Michaux C, Holmqvist E, Vasicek E, Sharan M, Barquist L, **Westermann AJ**, Gunn J, Vogel J (2017)
RNA target profiles direct the discovery of virulence functions for the cold shock proteins CspC and CspE
PNAS 114(26):6824-6829
- 7 **Westermann AJ**, Förstner KU, Amman F, Barquist L, Chao Y, Schulte LN, Müller L, Reinhardt R, Stadler PF, Vogel J (2016)
Dual RNA-seq unveils noncoding RNA functions in Salmonella-host interplay
Nature 529(7587):496-501
[Covered by News & Views in Nature 529\(7587\):472-3, Nature Reviews Genetics 17\(3\):126, Faculty 1000](#)
- 6 Saliba A-E, Li L, **Westermann AJ**, Appenzeller S, Stapels DAC, Schulte L, Helaine S, Vogel J (2016)
Single-cell RNA-seq ties macrophage polarization to growth rate of intracellular Salmonella
Nature Microbiology 2:16206
["Paper of the Month" December 2016 of the German Society for Hygiene and Microbiology \(DGHM\)](#)
- 5 Müller AA, Dolowschiak T, Sellin ME, Felmy B, Verbree C, Gadiant S, **Westermann AJ**, Vogel J, LeibundGut-Landmann S, Hardt W-D (2016)
An NK cell perforin response elicited via IL-18 controls mucosal inflammation kinetics during Salmonella gut infection
PLoS Pathogens 12(6):e1005723
- 4 Afonso-Grunz F, Hoffmeier K, Müller S, **Westermann AJ**, Rotter B, Vogel J, Winter P, Kahl G (2015)
Dual 3'Seq using deepSuperSAGE uncovers transcriptomes of interacting Salmonella Typhimurium and human host cells
BMC Genomics 16(1):323
- 3 Schulte LN, **Westermann AJ**, Vogel J (2013)
Differential activation and functional specialization of miR-146 and miR-155 in innate immune sensing
Nucleic Acids Research 41(1):542-53
- 2 Hickey SF, Sridhar M, **Westermann AJ**, Qin Q, Vijayendra P, Liou G, Hammond MC (2012)
Transgene regulation in plants by alternative splicing of a suicide exon
Nucleic Acids Research 40(10):4701-10
- 1 Stauffer E, **Westermann A**, Wagner G, Wachter A (2010)
Polypyrimidine tract-binding protein homologues from Arabidopsis underlie regulatory circuits based on alternative splicing and downstream control
Plant Journal 64(2):243-55

*: equal contribution

†: co-correspondence

Reviews

- 7 Bornet E, **Westermann AJ** (2022)
The ambivalent role of Bacteroides in enteric infections
Trends in Microbiology 30(2):104-108
- 6 **Westermann AJ***, Vogel J* (2021)
Cross-species RNA-seq for deciphering host-microbe interactions
Nature Reviews Genetics 22(6):361-378
- 5 Ryan D, Prezza G, **Westermann AJ** (2020)
An RNA-centric view on gut Bacteroidetes
Biological Chemistry 402(1):55-72
- 4 **Westermann AJ***, Barquist L*, Vogel J (2017)
Resolving host-pathogen interactions by dual RNA-seq

PLoS Pathogens 13(2):e1006033

- 3 Barquist L*, **Westermann AJ***, Vogel J (2016)
Molecular phenotyping of infection-associated small noncoding RNAs
Philosophical Transactions of the Royal Society B 371(1707)
- 2 Saliba AE, **Westermann AJ**, Gorski SA, Vogel J (2014)
Single-cell RNA-seq: advances and future challenges
Nucleic Acids Research 42(14):8845-60
- 1 **Westermann AJ**, Gorski SA, Vogel J (2012)
Dual RNA-seq of pathogen and host
Nature Reviews Microbiology 10(9):618-30

*: equal contribution

†: co-correspondence

Book chapters

- 3 Frönicke L, Bronner DN, Byndloss MX, McLaughlin B, Bäumlér AJ, **Westermann AJ** (2018)
Toward cell type-specific in-vivo dual RNA-seq
In: Carpousis AJ (ed) High-density sequencing applications in microbial molecular genetics
Methods in Enzymology 2018;612:505-522
- 2 **Westermann AJ** (2018)
Regulatory RNAs in virulence and host-microbe interactions
In: Papenfort K, Storz G (eds) Regulating with RNA in bacteria and archaea
Microbiology Spectrum 6(4):RWR-0002-2017
- 1 **Westermann AJ** & Vogel J (2018)
Host-pathogen transcriptomics by dual RNA-seq
In: Arluison V, Valverde C (eds) Bacterial regulatory RNA
Methods in Molecular Biology 2018;1737:59-75

Granted patent

Hammond MC, **Westermann AJ**, Qin Q A P5SM suicide exon for regulating gene expression US9637750B2