

**Full record:** ~220 publications, >21,000 citations, **h-index = 84; Highly Cited Researcher** Thomson Reuters/Clarivate Analytics

## Experimental work

Ponath F, Zhu Y, Cosi V, **Vogel J** (2022)

*New genetic tools enable dissection of a global stress response in the early-branching species *Fusobacterium nucleatum**  
**PNAS** 119(40):e2201460119

Matera G, Altuvia Y, Gerovac M, El Mouali Y, Margalit H, **Vogel J** (2022)

*Global RNA interactome of *Salmonella* discovers a 5'UTR sponge for the *MicF* small RNA that connects membrane permeability to transport capacity*

**Molecular Cell** 82(3):629-644.e4

Recommended by Faculty Opinions

Popella L, Jakob J, Phuong Thao D, Hayward R, Barquist L, **Vogel J** (2022)

*Comprehensive analysis of PNA-based antisense antibiotics targeting various essential genes in uropathogenic *Escherichia coli**  
**Nucleic Acids Research** 50(11):6435-6452

Hör J, Jung J, Đurica-Mitić S, Barquist L, **Vogel J** (2022)

*INRI-seq enables global cell-free analysis of translation initiation and off-target effects of antisense inhibitors*  
**Nucleic Acids Research** in press

Chihara K, Gerovac M, Hör J, **Vogel J** (2022)

*Global profiling of the RNA and protein complexes of *Escherichia coli* by size exclusion chromatography followed by RNA sequencing and mass spectrometry (SEC-seq)*

**RNA** in press

Schneider C, Erhard F, Binotti B, Buchberger A, **Vogel J**, Fischer U (2022)

*An unusual mode of baseline translation adjusts cellular protein synthesis capacity to metabolic needs*  
**Cell Reports** 41(2):111467

Schuster EV, Epple MW, Glaser K, Mihlan M, Lucht K, Zimmermann JA, Bremser A, Polyzou A, Obier N, Cabezas-Wallscheid N, Trompouki E, Ballabio A, **Vogel J**, Buescher JM, Lämmermann T, Westermann AJ, Rambold AS (2022)

*TFEB induces mitochondrial itaconate synthesis to suppress bacterial growth in macrophages*

**Nature Metabolism** 4(7):856-866

Gomez-Raya-Vilanova M, Leskinen K, Bhattacharjee A, Virta P, Rosenqvist P, Smith J, Bayfield O, Homberger C, Kerinnes T, **Vogel J**, Pajunen M, Skurnik M (2022)

*The DNA polymerase of bacteriophage *YerA41* replicates its T-modified DNA in a primer-independent manner*

**Nucleic Acids Research** 50(7):3985-3997

Yair Y, Michaux C, Biran D, Bernhard J, **Vogel J**, Barquist L, Ron E (2022)

*Cellular RNA targets of cold shock proteins *CspC* and *CspE* and their importance for serum resistance in septicemic *E. coli**  
**mSystems** 7(4):e0008622

Solar Venero EC, Matera G, Vogel J, López NI, Tribelli PM (2022)

*Small RNAs in the Antarctic bacterium *Pseudomonas extremaustralis* involved in oxygen availability and oxidative stress responses*  
**Environmental Microbiology Reports** 14(4):604-615

Ponath F, Tawk C, Zhu Y, Barquist L, Faber F, **Vogel J** (2021)

*RNA landscape of the emerging cancer-associated microbe *Fusobacterium nucleatum**

**Nature Microbiology** 6(8):1007-1020

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 by Faculty1000

- Popella L, Jung J, Popova K, Đurica-Mitić S, Barquist L, **Vogel J** (2021)  
*Global RNA profiles show target selectivity and physiological effects of peptide-delivered antisense antibiotics*  
**Nucleic Acids Research** 49(8):4705-4724
- El Mouali Y, Gerovac M, Mineikaitė R, **Vogel J** (2021)  
*In vivo targets of Salmonella FinO include a FinP-like small RNA controlling copy number of a cohabitating plasmid*  
**Nucleic Acids Research** 49(9):5319-5335
- El Mouali Y, Ponath F, Scharrer V, Wenner N, Hinton JCD, **Vogel J** (2021)  
*Scanning mutagenesis of RNA-binding protein ProQ reveals a quality control role for the Lon protease*  
**RNA** 27(12):1512–1527
- Gerovac M, Wicke L, Chihara K, Schneider C, Lavigne R, **Vogel J** (2021)  
*A Grad-seq view of RNA and protein complexes in Pseudomonas aeruginosa under standard and bacteriophage predation conditions*  
**mBio** 12(1):e03454-20
- Wicke L, Ponath F, Coppens L, Gerovac M, Lavigne R, **Vogel J** (2021)  
*Introducing Differential RNA-seq mapping to track the early infection phase for Pseudomonas phage  $\phi$ KZ*  
**RNA Biology** 18(8):1099-1110
- Schmidt N, Lareau C, Keshishian H, Ganskih S, Schneider C, Hennig T, Melanson R, Werner S, Wei Y, Zimmer M, Ade J, Kirschner L, Zielinski S, Dölken L, Lander ES, Caliskan N, Fischer U, **Vogel J**, Carr S, Bodem J, Munschauer M (2021)  
*The SARS-CoV-2 RNA-protein interactome in infected human cells*  
**Nature Microbiology** 6(3):339-353
- Fuchs M, Lamm-Schmidt V, Sulzer S, Ponath F, Jenniches L, Kirk JA, Fagan RP, Barquist L, **Vogel J**, Faber F (2021)  
*An RNA-centric global view of Clostridioides difficile reveals broad activity of Hfq in a clinically important gram-positive bacterium*  
**PNAS** 118(25):e2103579118
- Md. Saiful Islam, Bandyra KJ, Chao Y, **Vogel J**, Ben F. Luisi (2021)  
*Impact of pseudo-uridylation, substrate fold and degradosome organization on the endonuclease activity of RNase E*  
**RNA** 27(11):1339-1352
- Lamm-Schmidt V, Fuchs M, Sulzer J, Gerovac M, Hör J, Dersch P, **Vogel J**, Faber F (2021)  
*Grad-seq identifies KhpB as a global RNA-binding protein in Clostridioides difficile that regulates toxin production*  
**microLife** in press
- Fulde M, van Vorst K, Zhang K, Westermann AJ, Busche T, Huei YC, Welitschanski K, Froh I, Pägelow D, Johanna Plend, Pfarrer C, Kalinowski J, **Vogel J**, Weigand PV, 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
- Bernhardt L, Dittrich M, El-Merahbi R, Saliba AE, Müller T, Sumara G, **Vogel J**, Nichols-Burns S, Mitchell, Haaf T, El Hajj N (2021)  
*A genome-wide transcriptomic analysis of embryos fathered by obese males in a murine model of diet-induced obesity*  
**Scientific Reports** 11(1):1979
- Imdahl F, Vafadarnejad E, Homberger C, Saliba AE, **Vogel J** (2020)  
*Single-cell RNA-seq reports growth condition-specific global transcriptomes of individual bacteria*  
**Nature Microbiology** 5(10):1202-1206
- Hör J, Garriss G, Di Giorgio S, Hack LM, Vanselow JT, Förstner KU, Schlosser A, Henriques-Normark B, **Vogel J** (2020)  
*Grad-seq in a Gram-positive bacterium reveals exonucleolytic sRNA activation in competence control*  
**EMBO Journal** 39(9):e103852

- Hör J, Di Giorgio S, Gerovac M, Venturini E, Förstner KU, **Vogel J** (2020)  
*Grad-seq shines light on unrecognized RNA and protein complexes in the model bacterium Escherichia coli*  
**Nucleic Acids Research** 48(16):9301-9319
- Wang C, Chao Y, Matera G, Gao Q, **Vogel J** (2020)  
*The conserved 3' UTR-derived small RNA NarS mediates mRNA crossregulation during nitrate respiration*  
**Nucleic Acids Research** 48(4):2126–2143
- Gerovac M, El Mouali Y, Kuper J, Kisker C, Barquist L, **Vogel J** (2020)  
*Global discovery of bacterial RNA-binding proteins by RNase-sensitive gradient profiles reports a new FinO domain protein*  
**RNA** 26(10):1448-1463
- 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
- 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:uqaa002
- Michaux C, Hansen EE, Jenniches L, Gerovac M, Barquist B, **Vogel J**, (2020)  
*Single-nucleotide RNA maps for the two major nosocomial pathogens Enterococcus faecalis and Enterococcus faecium*  
**Frontiers in Cellular & Infection Microbiology** 10:600325
- Bauriedl S, Gerovac M, Heidrich N, Bischler T, Barquist L, **Vogel J**, Schoen C (2020)  
*The minimal meningococcal ProQ protein has an intrinsic capacity for structure-based global RNA recognition*  
**Nature Communications** 11(1):2823
- 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 of Orientia tsutsugamushi informs on host-pathogen interactions for this neglected intracellular human pathogen*  
**Nature Communications** 11(1):3363
- Parhi L, Alon-Maimon T, Sol A, Nejman D, Shhadeh A, Fainsod-Levi T, Yajuk O, Isaacson B, Abed J, Maalouf N, Nissan A, Sandbank J, Yehuda-Shnaidman E, Ponath F, **Vogel J**, Mandelboim O, Granot Z, Straussman R, Bachrach G (2020)  
*Breast cancer colonization by Fusobacterium nucleatum accelerates tumor growth and metastatic progression*  
**Nature Communications** 11(1):3259
- Chumduri C, Gurumurthy RK, Berger H, Dietrich O, Kumar N, Koster S, Brinkmann V, Hoffmann K, Drabkina M, Arampatzi P, Son D, Klemm U, Mollenkopf HJ, Herbst H, Mangler M, **Vogel J**, Saliba AE, Meyer TF (2020)  
*Opposing Wnt signals regulate cervical squamocolumnar homeostasis and emergence of metaplasia*  
**Nature Cell Biology** 23(2):184-197
- 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
- Hennessen F, Miethke M, Zaburanyi N, Loose M, Lukežič T, Bernecker S, Hüttel S, Jansen R, Schmiedel J, Fritzenwanker M, Imirzalioglu C, **Vogel J**, Westermann AJ, Hesterkamp T, Stadler M, Wagenlehner F, Petković H, Herrmann J, Müller R (2020)  
*Amidochelocardin overcomes resistance mechanisms exerted on tetracyclines and natural chelocardin*  
**Antibiotics** 9(9):619
- Seelbinder B, Wallstabe J, Marischen L, Weiss E, Wurster S, Page L, Löffler C, Bussemer L, Schmitt AL, Wolf T, Linde J, Cicin-Sain L, Becker J, Kalinke U, **Vogel J**, Panagiotou G, Einsele H, Westermann AJ, Schäuble S, Loeffler J (2020)  
*Triple RNA-seq reveals synergy in a human virus-fungus co-infection model*  
**Cell Reports** 33(7):108389

Hollenhorst MI, Jurastow I, Nandigama R, Appenzeller S, Li L, **Vogel J**, Wiederhold S, Althaus M, Empting M, Altmüller J, Hirsch AKH, Flockerzi V, Canning BJ, Saliba AE, Krasteva-Christ G (2020)

*Tracheal brush cells release acetylcholine in response to bitter tastants for paracrine and autocrine signaling*  
**FASEB Journal** 34:316–332

Schulte-Schrepping J, Reusch N, Paclik D, Baßler K, Schlickeiser S, Zhang B, Krämer B, Krammer T, Brumhard S, Bonaguro L, De Domenico E, Wendisch D, Grasshoff M, Kapellos TS, Beckstette M, Pecht T, Saglam A, Dietrich O, Mei HE, Schulz AR, Conrad C, Kunkel D, Vafadarnejad E, Xu CJ, Horne A, Herbert M, Drews A, Thibeault C, Pfeiffer M, Hippenstiel S, Hocke A, Müller-Redetzky H, Heim KM, Machleidt F, Uhrig A, Bosquillon de Jarcy L, Jürgens L, Stegemann M, Glösenkamp CR, Volk HD, Goffinet C, Landthaler M, Wyler E, Georg P, Schneider M, Dang-Heine C, Neuwinger N, Kappert K, Tauber R, Corman V, Raabe J, Kaiser KM, Vinh MT, Rieke G, Meisel C, Ulas T, Becker M, Geffers R, Witzenthalm M, Drosten C, Suttorp N, von Kalle C, Kurth F, Händler K, Schultze JL, Aschenbrenner AC, Li Y, Nattermann J, Sawitzki B, Saliba AE, Sander LE; DeCOI (2020)

*Severe COVID-19 Is Marked by a Dysregulated Myeloid Cell Compartment.*  
**Cell** 182(6):1419-1440 (co-authorship as member of DeCOI; Deutsche COVID-19 OMICS Initiative)

Miyakoshi M, Matera G, Maki K, Sone Y, **Vogel J** (2019)

*Functional expansion of a TCA cycle operon mRNA by a 3' end-derived small RNA*  
**Nucleic Acids Research** 47(4):2075-2088

Westermann AJ, Venturini E, Sellin ME, Förstner KU, Hardt WD, **Vogel J** (2019)

*The major RNA-binding protein ProQ impacts virulence gene expression in Salmonella Typhimurium*  
**mBio** pii:e02504-18

Chihara K, Bischler T, Barquist L, Monzon V, Noda N, **Vogel J**, Tsuneda S (2019)

*Conditional Hfq association with small non-coding RNAs in Pseudomonas aeruginosa revealed through comparative UV crosslinking immunoprecipitation followed by high-throughput sequencing*  
**mSystems** 4(6) pii: e00590-19

Heidrich N, Hagmann A, Bauriedl S, **Vogel J**, Schoen C (2019)

*The CRISPR/Cas system in Neisseria meningitidis affects bacterial adhesion to human nasopharyngeal epithelial cells*  
**RNA Biology** 16(4):390-396

Stapels DAC, Hill PWS, Westermann AJ, Fisher R, Thurston TL, Saliba AE, Blommestein I, **Vogel J**, Helaine S (2018)

*Salmonella persists undermine host immune defences during antibiotic treatment*  
**Science** 362(6419):1156-1160  
[Recommended by Faculty1000](#)

Holmqvist E, Li L, Bischler T, Barquist L, **Vogel J** (2018)

*Global maps of ProQ binding in vivo reveal target recognition via RNA structure and stability control at mRNA 3' ends*  
**Molecular Cell** 70(5):971-982

Müller L, Cosentino R, Förstner KU, Guizetti J, Wedel C, Kaplan N, Janzen C, Arampatzi P, **Vogel J**, Steinbiss S, Otto T, Saliba AE, Sebra R, Siegel TN (2018)

*Genome organization and DNA accessibility control antigenic variation in trypanosomes*  
**Nature** 563(7729):121-125

Tawk C, Nigro G, Lopes I, Aguilar C, Lisowski C, Mano M, Sansonetti P, **Vogel J**, Eulalio A (2018)

*Stress-induced host membrane remodeling protects from infection by non-motile bacterial pathogens*  
**EMBO Journal** 37(23) pii: e98529

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):e100740

Yu SH, **Vogel J**, Förstner KU (2018)

*ANNOgesic: a Swiss army knife for the RNA-seq based annotation of bacterial/archaeal genomes*  
**Gigascience** 7(9) giy096

- Michaux C, Holmqvist E, Vasicek E, Sharan M, Barquist L, Westermann AJ, Gunn JS, **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
- Chao Y, Li L, Girodat D, Förstner KU, Said N, Corcoran C, Šmiga M, Papenfort K, Reinhardt R, Wieden HJ, Luisi BF, **Vogel J** (2017)  
*In vivo cleavage map illuminates the central role of RNase E in coding and noncoding RNA pathways*  
**Molecular Cell** 65(1):39-51  
[Preview in Molecular Cell 65\(1\):3-4, recommended by Faculty1000](#)
- Smirnov A, Wang C, Drewry LL, **Vogel J** (2017)  
*Molecular mechanism of mRNA repression in trans by a ProQ-dependent small RNA*  
**EMBO Journal** 36(8):1029-1045
- Saliba AE, Li L, Westermann AJ, Appenzeller S, Stapels DAC, Schulte LN, Helaine S, **Vogel J** (2017)  
*Single-cell RNA-seq ties macrophage polarization to growth rate of intracellular Salmonella*  
**Nature Microbiology** 2:16206
- Heidrich N, Bauriedl S, Barquist L, Li L, Schoen S, **Vogel J** (2017)  
*The primary transcriptome of Neisseria meningitidis and its interaction with the RNA chaperone Hfq*  
**Nucleic Acids Research** 45(10):6147-6167
- Sharan M, Förstner KU, Eulalio A, **Vogel J** (2017)  
*APRICOT: an integrated computational pipeline for the sequence-based identification and characterization of RNA-binding proteins*  
**Nucleic Acids Research** 45(11):e96
- Tawk C, Sharan M, Eulalio A, **Vogel J** (2017)  
*A systematic analysis of the RNA-targeting potential of secreted bacterial effector proteins*  
**Scientific Reports** 7(1):9328
- Gonzalez GM, Hardwick SW, Maslen SL, Skehel JM, Holmqvist E, **Vogel J**, Bateman A, Luisi BF, Broadhurst RW (2017)  
*Structure of the Escherichia coli ProQ RNA binding protein*  
**RNA** 23(5):696-711
- 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 host-pathogen interactions*  
**Nature** 529:496-501  
[Covered by News & Views in Nature 529\(7587\):472-3, Nature Reviews Genetics 17\(3\):126, Faculty 1000](#)
- Smirnov A, Förstner KU, Holmqvist E, Otto A, Günster R, Becher D, Reinhardt R, **Vogel J** (2016)  
*Grad-seq guides the discovery of ProQ as a major small RNA binding protein*  
**PNAS** 113(41):11591-6  
[Research highlight in Nature Reviews Microbiology, recommended by Faculty1000](#)
- Chao Y, **Vogel J** (2016)  
*A 3'UTR derived small RNA provides the regulatory noncoding arm of the inner membrane stress response*  
**Molecular Cell** 61:352-363
- Holmqvist E, Wright PR, Li L, Bischler T, Barquist L, Reinhardt R, Backofen R, **Vogel J** (2016)  
*Global RNA recognition patterns of post-transcriptional regulators Hfq and CsrA revealed by UV crosslinking in vivo*  
**EMBO Journal** 35(9):991-1011
- Fröhlich KS, Haneke K, Papenfort K, **Vogel J** (2016)  
*The target spectrum of SdsR small RNA in Salmonella*  
**Nucleic Acids Research** 44(21):10406-22
- Das S, Lindemann C, Young BC, Muller J, Österreich B, Ternette N, Winkler AC, Paprotka K, , Reinhardt R, Förstner KU, Allen E, Flaxman A, Yamaguchi Y, Rollier CS, van Diemen P, Blättner S, Remmele CW, Selle M, Dittrich M, Mueller T, **Vogel J**, Ohlsen K, Crook DW, Massey R, Wilson DJ, Rudel R, Wyllie DH, Fraunholz MJ (2016)  
*Natural mutations in a S. aureus virulence regulator attenuate cytotoxicity but permit bacteremia and abscess formation*  
**PNAS** 113(22):E3101–E3110

- Hershko-Shalev T, Odenheimer-Bergman A, Elgrably-Weiss M, Ben-Zvi T, Govindarajan S, Seri H, Papenfort K, **Vogel J**, Altuvia S (2016)  
*Gifsy-1 prophage IsrK with dual function as small and messenger RNA modulates vital bacterial machineries*  
**PLoS Genetics** 12(4):e1005975
- Müller AA, Dolowschiak T, Sellin ME, Felmy B, Verbree C, Gadiant S, Westermann AJ, **Vogel J**, LeibundGut-Landmann S, Hardt WD (2016)  
*An NK cell perforin response elicited via IL-18 controls mucosal inflammation kinetics during Salmonella gut infection*  
**PLoS Pathogens** 12(6):e1005723
- Cao Y, Förstner KU, **Vogel J**, Smith J (2016)  
*Cis-encoded sRNAs, a conserved mechanism for repression of polysaccharide utilization in the Bacteroides*  
**Journal of Bacteriology** 198(18):2410-8
- Jiang Y, Oron TR, Clark WT, Bankapur AR, D'Andrea D, Lepore R, Funk CS, Kahanda I, Verspoor KM, Ben-Hur A, Koo da CE, Penfold-Brown D, Shasha D, Youngs N, Bonneau R, Lin A, Sahraeian SM, Martelli PL, Profiti G, Casadio R, Cao R, Zhong Z, Cheng J, Altenhoff A, Skunca N, Dessimoz C, Dogan T, Hakala K, Kaewphan S, Mehryary F, Salakoski T, Ginter F, Fang H, Smithers B, Oates M, Gough J, Törönen P, Koskinen P, Holm L, Chen CT, Hsu WL, Bryson K, Cozzetto D, Minneci F, Jones DT, Chapman S, Bkc D, Khan IK, Kihara D, Ofer D, Rappoport N, Stern A, Cibrian-Uhalte E, Denny P, Foulger RE, Hieta R, Legge D, Lovering RC, Magrane M, Melidoni AN, Mutowo-Meullenet P, Pichler K, Shypitsyna A, Li B, Zakeri P, ElShal S, Tranchevent LC, Das S, Dawson NL, Lee D, Lees JG, Sillitoe I, Bhat P, Nepusz T, Romero AE, Sasidharan R, Yang H, Paccanaro A, Gillis J, Sedeño-Cortés AE, Pavlidis P, Feng S, Cejuela JM, Goldberg T, Hamp T, Richter L, Salamov A, Gabaldon T, Marcet-Houben M, Supek F, Gong Q, Ning W, Zhou Y, Tian W, Falda M, Fontana P, Lavezzo E, Toppo S, Ferrari C, Giollo M, Piovesan D, Tosatto SC, Del Pozo A, Fernández JM, Maietta P, Valencia A, Tress ML, Benso A, Di Carlo S, Politano G, Savino A, Rehman HU, Re M, Mesiti M, Valentini G, Bargsten JW, van Dijk AD, Gemovic B, Glisic S, Perovic V, Veljkovic V, Veljkovic N, Almeida-E-Silva DC, Vencio RZ, Sharan M, Vogel J, Kansakar L, Zhang S, Vucetic S, Wang Z, Sternberg MJ, Wass MN, Huntley RP, Martin MJ, O'Donovan C, Robinson PN, Moreau Y, Tramontano A, Babbitt PC, Brenner SE, Linial M, Orengo CA, Rost B, Greene CS, Mooney SD, Friedberg I, Radivojac P (2016)  
*An expanded evaluation of protein function prediction methods shows an improvement in accuracy*  
**Genome Biology** 17(1):184
- Berger P, Knödler M, Förstner KF, Berger M, Bertling C, Sharma CM, **Vogel J**, Karch H, Dobrindt U, Mellmann A (2016)  
*The primary transcriptome of the E. coli O104:H4 pAA plasmid and novel insights into its virulence gene expression and regulation*  
**Scientific Reports** 6:35307
- Papenfort K, Espinosa E, Casadesús J, **Vogel J** (2015)  
*Small RNA-based feed-forward loop with AND-gate logic regulates extrachromosomal DNA transfer in Salmonella*  
**PNAS** 112(34):E4772-81
- Miyakoshi M, Chao Y, **Vogel J** (2015)  
*Crosstalk between ABC transporter mRNAs via a target mRNA-derived sponge of the GcvB small RNA*  
**EMBO Journal** 34(11):1478-92  
[Preview in EMBO J 34\(11\):1436-8](#)
- Sass A, Van Acker H, Förstner KU, Van Nieuwerburgh F, Deforce D, **Vogel J**, Coenye T (2015)  
*Genome-wide transcription start site profiling in biofilm-grown Burkholderia cenocepacia J2315*  
**BMC Genomics** 16(1):775
- 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
- Fan B, Li L, Chao Y, Jiang CL, Förstner KU, **Vogel J**, Borriss B, Wu XQ (2015)  
*dRNA-seq reveals genomewide TSSs and noncoding RNAs of plant beneficial rhizobacterium Bacillus amyloliquefaciens FZB42*  
**PLoS One** 10(11):e0142002
- Dimastrogiovanni D, Fröhlich KS, Bandyra KJ, Bruce HA, Hohensee S, **Vogel J**, Luisi BF (2014)  
*Recognition of the small regulatory RNA RydC by the bacterial Hfq protein*  
**eLife** 3:e05375



- Förstner KU, **Vogel J**, Sharma CM (2014)  
*READemption – A tool for the computational analysis of deep-sequencing-based transcriptome data*  
**Bioinformatics** 30(23):3421-3
- Papenfort K, Sun Y, Miyakoshi M, Vanderpool CK, **Vogel J** (2013)  
*Small RNA-mediated activation of sugar phosphatase mRNA regulates glucose homeostasis*  
**Cell** 153:426-37
- Fröhlich KS, Papenfort K, Fekete A, **Vogel J** (2013)  
*A small RNA activates CFA synthase by isoform-specific mRNA stabilization*  
**EMBO Journal** 32(22):2963-79
- Zhang Y, Heidrich N, Ampattu BJ, Gunderson CW, Seifert HS, Schoen C, **Vogel J**, Sontheimer EJ (2013)  
*Processing-Independent CRISPR RNAs Limit Natural Transformation in *Neisseria meningitidis**  
**Molecular Cell** 50(4):488-503  
[Highlighted by spotlight article in Trends in Microbiology](#)
- Göpel Y, Papenfort K, Reichenbach B, **Vogel J**, Görke B (2013)  
*Targeted decay of a regulatory small RNA by an adaptor protein for RNase E and counteraction by an anti-adaptor RNA*  
**Genes & Development** 27(5):552-64
- Wright PR, Richter AS, Papenfort K, Mann M, **Vogel J**, Hess WR, Backofen R, Georg J (2013)  
*Comparative genomics boosts target prediction for bacterial small RNAs*  
**PNAS** 110(37):E3487-96
- Gutierrez A, Laureti L, Crussard S, Abida H, Rodríguez Rojas A, Blázquez J, Baharoglu Z, Mazel D, Darfeuille F, **Vogel J**, Matic I (2013)  
 *$\beta$ -lactam antibiotics promote bacterial mutagenesis via RpoS-mediated reduction in replication fidelity*  
**Nature Communications** 4:1610  
[Research Highlight in Nature Reviews Microbiology 11\(5\):298-9](#)
- Schulte LN, Westermann AJ, **Vogel J** (2013)  
*Differential activation and functional specialisation of miR-146 and miR-155 in innate immune sensing*  
**Nucleic Acids Research** 41(1):542-53
- Chao Y, Papenfort K, Reinhardt R, Sharma CM, **Vogel J** (2012)  
*An atlas of Hfq-bound transcripts reveals 3' UTRs as a genomic reservoir of regulatory small RNAs*  
**EMBO Journal** 31(20):4005-19  
[Preview in EMBO J 31\(20\):3958-60; multiple evaluations in Faculty 1000](#)
- Bandyra K, Said N, Pfeiffer V, Górna MW, **Vogel J**, Luisi BF (2012)  
*The seed region of a small RNA drives the controlled destruction of target mRNA by the endoribonuclease RNase E*  
**Molecular Cell** 47(6):943-53.  
[Preview in Molecular Cell 47\(6\):825-6](#)
- Papenfort K, Podkaminski D, Hinton JC, **Vogel J** (2012)  
*The ancestral SgrS RNA discriminates horizontally acquired *Salmonella* mRNAs through a single G-U wobble pair*  
**PNAS** 109(13):E757-64  
[Selected by Faculty 1000](#)
- Argaman L, Elgrably-Weiss M, Hershko T, **Vogel J**, Altuvia S (2012)  
*RelA protein stimulates the activity of RyhB small RNA by acting on Hfq*  
**PNAS** 109(12):4621-6  
[Research Highlight in Nature Reviews Microbiology 10: 310-311](#)
- Kröger C, Dillon SC, Cameron AD, Papenfort K, Sivasankaran SK, Hokamp K, Chao Y, Sittka A, Hebrard M, Händler K, Colgan A, Leekitcharoenphon P, Langridge GC, Lohan AJ, Loftus B, Lucchini S, Ussery DW, Dorman CJ, Thomson NR, **Vogel J**, Hinton JC (2012)  
*The transcriptional landscape and small RNAs of *Salmonella enterica* serovar Typhimurium*  
**PNAS** 109(20):E1277-86

- Lioliou E, Sharma CM, Caldelari I, Helfer AC, Fechter P, Vandenesch F, **Vogel J**, Romby P (2012)  
*Global regulatory functions of the of Staphylococcus aureus endoribonuclease III in gene expression*  
**PLoS Genetics** 8(6):e1002782
- Corcoran C, Podkaminski D, Papenfort K, Urban JH, Hinton JC, **Vogel J** (2012)  
*Superfolder GFP reporters validate diverse new mRNA targets of the classic porin regulator, MicF RNA*  
**Molecular Microbiology** 84(3):428-45  
[MicroCommentary in Molecular Microbiology 84\(3\):401-4](#)
- Zhelyazkova P, Sharma CM, Förstner KU, Liere K, **Vogel J**, Börner T (2012)  
*The primary transcriptome of barley chloroplasts: numerous non-coding RNAs and the dominating role of the plastid-encoded RNA polymerase*  
**Plant Cell** 24(1):123-36  
[Selected by Faculty 1000](#)
- Fröhlich KS, Papenfort K, Berger AA, **Vogel J** (2012)  
*A conserved RpoS-dependent small RNA controls the synthesis of major porin OmpD*  
**Nucleic Acids Research** 40(8):3623-40  
[Selected by Faculty 1000](#)
- Schmidtke C, Findeiß S, Sharma CM, Kuhfuß J, Hoffmann S, **Vogel J**, Stadler PF, Bonas U (2012)  
*Genome-wide transcriptome analysis of the plant pathogen Xanthomonas identifies sRNAs with putative virulence functions*  
**Nucleic Acids Research** 40(5):2020-203
- Madhugiri R, Pessi G, Voss B, Hahn J, Sharma CM, Reinhardt R, **Vogel J**, Hess WR, Fischer HM, Evguenieva-Hackenberg E (2012)  
*Small RNAs of the Bradyrhizobium/Rhodopseudomonas lineage and their analysis*  
**RNA Biology** 9(1):47-58
- Rieder R, Reinhardt R, Sharma CM, **Vogel J** (2012)  
*Experimental tools to identify RNA-protein interactions in Helicobacter pylori*  
**RNA Biology** 9(4):520-31
- Schulte LN, Eulalio A, Mollenkopf HJ, Reinhardt R, **Vogel J** (2011)  
*Analysis of the host microRNA response to Salmonella uncovers the control of major cytokines by the let-7 family*  
**EMBO Journal** 30(10):1977-89  
[Commentary in EMBO J 30\(10\):1977-9](#)
- Deltcheva E, Chylinski K, Sharma CM, Gonzales K, Chao Y, Pirzada ZA, Eckert MR, **Vogel J**, Charpentier E (2011)  
*CRISPR RNA maturation by trans-encoded small RNA and host factor RNase III*  
**Nature** 471(7340):602-7  
[News & Views in Nature 471\(7340\):588-589](#)
- Gogol EB, Rhodius VA, Papenfort K, **Vogel J**, Gross CA (2011)  
*Small RNAs endow a transcriptional activator with essential repressor functions for single-tier control of a global stress regulon*  
**PNAS** 108(31):12875-80
- Mitschke J, Georg J, Scholz I, Sharma CM, Dienst D, Bantscheff J, Voß B, Steglich C, Wilde A, **Vogel J**, Hess WR (2011)  
*An experimentally anchored map of transcriptional start sites in the model cyanobacterium Synechocystis sp. PCC 6803*  
**PNAS** 108(5):2124-9
- Sharma CM, Papenfort K, Pernitzsch SR, Mollenkopf HJ, Hinton JC, **Vogel J** (2011)  
*Pervasive post-transcriptional control of genes involved in amino acid metabolism by the Hfq-dependent GcvB small RNA*  
**Molecular Microbiology** 81(5):1144-65  
[MicroCommentary in Molecular Microbiology 81\(5\):1129-32](#)
- Berghoff B, Glaeser J, Sharma CM, Zobawa M, Lottspeich F, **Vogel J**, Klug G (2011)  
*Contribution of Hfq to photooxidative stress resistance and global regulation in Rhodobacter sphaeroides*  
**Molecular Microbiology** 80(6):1479-95
- Albrecht M, Sharma CM, Dittrich MT, Müller T, Reinhardt R, **Vogel J**, Rudel T (2011)  
*The transcriptional landscape of Chlamydia pneumoniae*  
**Genome Biology** 12(10):R98



- Belair C, Baud J, Chabas S, Sharma CM, **Vogel J**, Staedel C, Darfeuille F (2011)  
*Helicobacter pylori* interferes with an embryonic stem cell miRNA cluster to block cell cycle progression  
**Silence** 2(1):7
- Eulalio A, Fröhlich KS, Mano M, Giacca M, **Vogel J** (2011)  
*A candidate approach implicates the secreted Salmonella effector protein SpvB in P-body disassembly*  
**PLoS ONE** 6(3):e17296
- Sharma CM, Hoffmann S, Darfeuille F, Reignier J, Findeiß S, Sittka A, Chabas S, Reiche K, Hacker Müller J, Reinhardt R, Stadler PF, **Vogel J** (2010)  
*The primary transcriptome of the major human pathogen Helicobacter pylori*  
**Nature** 464(7286):250-5  
[Many evaluations in both Faculty1000 Biology & Medicine; Leading Edge Paper in Cell 141\(1\):5; ScienceWatch Fast Breaking Paper Feb 2011](#)
- Papenfert K, Bouvier M, Mika F, Sharma CM, **Vogel J** (2010)  
*Evidence for an autonomous 5' target recognition domain in an Hfq-associated small RNA*  
**PNAS** 107(47):20435-40  
[Multiple evaluations by Faculty1000](#)
- Heale BS, Eulalio A, Schulte LN, **Vogel J**, O'Connell MA (2010)  
*Analysis of A to I editing of miRNA in Macrophages exposed to Salmonella*  
**RNA Biology** 7(5):116-122
- Irnov I, Sharma CM, **Vogel J**, Winkler WC (2010)  
*Identification of regulatory RNAs in Bacillus subtilis*  
**Nucleic Acids Research** 38(19):6637-6651
- Bohn C, Rigoulay C, Chabelskaya S, Sharma CM, Marchais A, Skorski P, Borezee-Durant B, Barbet R, Jacquet E, Jacq A, Gautheret D, Felden B, **Vogel J**, Bouloc P (2010)  
*Experimental discovery of small RNAs in Staphylococcus aureus reveals a riboregulator of central metabolism*  
**Nucleic Acids Research** 38(19):6620-6636
- Albrecht M, Sharma CM, Reinhardt R, **Vogel J**, Rudel T (2010)  
*Deep sequencing-based discovery of the Chlamydia trachomatis transcriptome*  
**Nucleic Acids Research** 38(3):868-77
- Pfeiffer V, Papenfert K, Lucchini S, Hinton JC, **Vogel J** (2009)  
*Coding sequence targeting by MicC RNA reveals bacterial mRNA silencing downstream of translational initiation*  
**Nature Structural & Molecular Biology** 16(8):840-846  
[News & Views in NSMB 16\(8\):804-6; Research Highlight in Nature Reviews Microbiology 7\(9\): 618-9](#)
- Jäger D, Sharma CM, Thomsen J, Ehlers C, **Vogel J**, Schmitz RA (2009)  
*Deep sequencing analysis of the Methanosarcina mazei Gö1 transcriptome in response to nitrogen availability*  
**PNAS** 106(51):21878-21882
- Said N, Rieder R, Hurwitz R, Deckert J, Urlaub H, **Vogel J** (2009)  
*In vivo expression and purification of aptamer-tagged small RNA regulators*  
**Nucleic Acids Research** 37(20):e133
- Berghoff BA, Glaeser J, Sharma CM, **Vogel J**, Klug G (2009)  
*Photooxidative stress induced and abundant small RNAs in Rhodobacter sphaeroides*  
**Molecular Microbiology** 74(6), 1497–1512
- Papenfert K, Said N, Welsink T, Lucchini S, Hinton JC, **Vogel J** (2009)  
*Specific and pleiotropic patterns of mRNA regulation by ArcZ, a conserved, Hfq-dependent small RNA*  
**Molecular Microbiology** 74(1):139-158
- Muller C, Bang IS, Velayudhan J, Karlinsey J, Papenfert K, **Vogel J**, Fang FC (2009)  
*Acid Stress Activation of the  $\sigma^E$  Stress Response in Salmonella enterica serovar Typhimurium*  
**Molecular Microbiology** 71(5):1228-38

Hoffmann S, Otto C, Kurtz S, Sharma CM, Khaitovich P, **Vogel J**, Stadler PF, Hackermüller J (2009)  
*Fast mapping of short sequences with mismatches, insertions and deletions using index structures*  
**PLoS Computational Biology** 5(9):e1000502

Sittka A, Sharma CM, Rolle K, **Vogel J** (2009)  
*Deep sequencing of Salmonella RNA associated with heterologous Hfq proteins in vivo reveals small RNAs as a major target class and identifies RNA processing phenotypes*  
**RNA Biology** 6(3):266-275

Bouvier M, Sharma CM, Mika F, Nierhaus KH, **Vogel J** (2008)  
*Small RNA binding to 5' mRNA coding region inhibits translational initiation*  
**Molecular Cell** 32(6):827-37  
[Preview in Molecular Cell 32\(6\):751-753](#)

Urban JH, **Vogel J** (2008)  
*Two seemingly homologous noncoding RNAs act hierarchically to activate glmS mRNA translation*  
**PLoS Biology** 6(3):e64  
[Leading Edge Paper in Cell 133\(4\):555](#)

Sittka A, Lucchini S, Papenfort K, Sharma C, Rolle K, Binnewies TT, Hinton JC, **Vogel J** (2008)  
*Deep sequencing analysis of small noncoding RNA and mRNA targets of the global post-transcriptional regulator, Hfq*  
**PLoS Genetics** 4(8):e1000163  
[Research Highlight in Nature Reviews Microbiology 6\(10\):172](#)

Song T, Mika F, Lindmark B, Liu Z, Schild S, Bishop A, Zhu J, Camilli A, Johansson J, **Vogel J**, Wai SN (2008)  
*A new Vibrio cholerae sRNA modulates colonization and affects release of outer membrane vesicles*  
**Molecular Microbiology** 70(1):100–111

Papenfort K, Pfeiffer V, Lucchini S, Sonawane A, Hinton JC, **Vogel J** (2008)  
*Systematic deletion of Salmonella small RNA genes identifies CyaR, a conserved CRP-dependent riboregulator of OmpX synthesis*  
**Molecular Microbiology** 68(4):890–906  
[Selected by Faculty 1000](#)

Dienst D, Dühring U, Mollenkopf HJ, **Vogel J**, Golecki J, Hess WR, Wilde A (2008)  
*The cyanobacterial homologue of the RNA chaperone Hfq is essential for motility of Synechocystis sp. PCC 6803*  
**Microbiology** 154(10):3134–3143

Sharma CM, Darfeuille F, Plantinga T, **Vogel J** (2007)  
*A small RNA regulates multiple ABC transporter mRNAs by targeting C/A-rich elements inside and upstream of ribosome binding sites*  
**Genes & Development** 21(21):2804-2817  
[Research Highlight in Nature Reviews Microbiology 6\(1\):4 and Nature Reviews Molecular Cell Biology 8\(12\): 945](#)

Darfeuille F, Unoson C, **Vogel J**, Wagner EGH (2007)  
*An antisense RNA inhibits translation by competing with “standby” ribosomes*  
**Molecular Cell** 26(3):381-92  
[Selected by Faculty 1000](#)

Pfeiffer V, Sittka A, Tomer R, Tedin K, Brinkmann V, **Vogel J** (2007)  
*A small noncoding RNA of the invasion gene island (SPI-1) represses OMP synthesis from the Salmonella core genome*  
**Molecular Microbiology** 66(5):1174–1191  
[Selected by Faculty 1000](#)

Wilson JW, Ott CM, Höner zu Bentrup K, Ramamurthy R, Quick L, Porwollik S, Cheng P, McClelland M, Tsaprailis G, Radabaugh T, Hunt A, Fernandez D, Richter E, Shah M, Kilcoyne M, Joshi L, Nelman-Gonzalez M, Hing S, Parra M, Dumars P, Norwood K, Bober R, Devich J, Ruggles A, Goulart C, Rupert M, Stodieck L, Stafford P, Catella L, Schurr MJ, Buchanan K, Morici L, McCracken J, Allen P, Baker-Coleman C, Hammond T, **Vogel J**, Nelson R, Pierson DL, Stefanyshyn-Piper HM, Nickerson CA (2007)  
*Spaceflight alters bacterial gene expression and virulence and reveals roles for global regulator Hfq*  
**PNAS** 104(41):16299–16304

- Viegas S, Pfeiffer V, Sittka A, Silva IJ, **Vogel J**, Arraiano CM (2007)  
*Characterization of the role of Ribonucleases in Salmonella small RNA decay*  
**Nucleic Acids Research** 35(22):7651-7664
- Urban JH, Papenfort K, Thompsen J, Schmitz RA, **Vogel J** (2007)  
*A conserved small RNA promotes discoordinate expression of the glmUS operon mRNA to activate GlmS synthesis*  
**Journal of Molecular Biology** 373(3): 521-528
- Urban JH, **Vogel J** (2007)  
*Translational control and target recognition by Escherichia coli small RNAs in vivo*  
**Nucleic Acids Research** 35(3):1018-37
- Sittka A, Pfeiffer V, Tedin K, **Vogel J** (2007)  
*The RNA chaperone Hfq is essential for the virulence of Salmonella typhimurium*  
**Molecular Microbiology** 63(1): 193-217
- Papenfort K, Pfeiffer V, Mika F, Lucchini S, Hinton JC, **Vogel J** (2006)  
*SigmaE-dependent small RNAs of Salmonella respond to membrane stress by accelerating global omp mRNA decay*  
**Molecular Microbiology** 62(6), 1674-1688
- Udekwi KI, Darfeuille F, **Vogel J**, Reimegård J, Holmqvist E, Wagner EGH (2005)  
*Hfq-dependent regulation of OmpA synthesis is mediated by an antisense RNA*  
**Genes & Development** 19(19):2355-2366  
 Selected by Faculty 1000
- Axmann IM, Kensche P, **Vogel J**, Kohl S, Herzel H, Hess WR (2005)  
*Identification of cyanobacterial non-coding RNAs by comparative genome analysis*  
**Genome Biology** 6(9):R73
- Vogel J**, Argaman L, Wagner EGH, Altuvia S (2004)  
*The small RNA IstR inhibits synthesis of an SOS-induced toxic peptide*  
**Current Biology** 14(24):2271-6
- Vogel J**, Bartel V, Tang TH, Churakov G, Slagter-Jäger, Hüttenhofer A, Wagner EGH (2003)  
*RNomics in Escherichia coli detects new sRNA species and indicates parallel transcriptional output in bacteria*  
**Nucleic Acids Research** 31(22):6435-6443
- Vogel J**, Axmann IM, Herzel H, Hess WR (2003)  
*Experimental and computational analysis of transcriptional start sites in the cyanobacterium Prochlorococcus MED4*  
**Nucleic Acids Research** 31(11):2890-2899
- Vogel J**, Börner T (2002)  
*Lariat formation and a hydrolytic pathway in plant chloroplast group II intron splicing*  
**EMBO Journal** 21(14):3794-3803
- Argaman L, Hershberg R, **Vogel J**, Bejerano G, Wagner EGH, Margalit H, Altuvia S (2001)  
*Novel small RNA-encoding genes in the intergenic regions of Escherichia coli*  
**Current Biology** 11(12):941-950  
 Selected by Faculty 1000
- Vogel J**, Hess WR (2001)  
*Complete 5' and 3' end maturation of group II intron containing tRNA precursors*  
**RNA** 7(2):285-292
- Vogel J**, Börner T, Hess WR (1999)  
*Comparative analysis of splicing of the complete set of chloroplast group II introns in three higher plant mutants*  
**Nucleic Acids Research** 27(19): 3866-3874

**Vogel J**, Börner T, Hess WR (1998)

*Barley plastid genes encoding trnI-GAU and trnA-UGC are disrupted by group II introns*

**Plant Physiology** 118:331

**Vogel J**, Hess WR, Börner T (1997)

*Precise branch point mapping and quantification of splicing intermediates*

**Nucleic Acids Research** 25(10):2030-2031

**Vogel J**, Hübschmann T, Börner T, Hess WR (1997)

*Splicing and intron-internal RNA editing of trnK-matK transcripts in barley plastids: support for MatK as an essential splice factor*

**Journal of Molecular Biology** 270(2):179-187

## Reviews and Commentaries

Ponath F, Hör J, **Vogel J** (2022)

*An overview of gene regulation in bacteria by small RNAs derived from mRNA 3' ends*

**FEMS Microbiology Reviews** 46(5):fuac017

Homberger C, Barquist L, **Vogel J** (2022)

*Ushering in a new era of single-cell transcriptomics in bacteria*

**microLife** in press

Hallof F Biscans A, Bujold KE, Debacker A, Hill AC, Lacroix A, Luige O, Strömberg R, Sundstrom L, **Vogel J**, Ghidini A (2022)

*Innovative developments and emerging technologies in RNA therapeutics*

**RNA Biology** 19(1):313-332

Westermann AJ, **Vogel J** (2021)

*Cross-species RNA-seq for deciphering host-microbe interactions*

**Nature Reviews Genetics** 22(6):361-378

Gerovac M, **Vogel J**, Smirnov A (2021)

*The world of stable ribonucleoproteins and its mapping with Grad-seq and related approaches*

**Frontiers in Molecular Biosciences** 8:661448

**Vogel J** (2020)

*An RNA biology perspective on species-specific programmable RNA antibiotics*

**Molecular Microbiology** 113(3):550-559

Rajewsky N, Almouzni G, Gorski SA, Aerts S, Amit I, Bertero MG, Bock C, Bredenoord AL, Cavalli G, Chioocca S, Clevers H, De Strooper B, Eggert A, Ellenberg J, Fernández XM, Figlerowicz M, Gasser SM, Hubner N, Kjems J, Knoblich JA, Krabbe G, Lichter P, Linnarsson S, Marine JC, Marioni J, Marti-Renom MA, Netea MG, Nickel D, Nollmann M, Novak HR, Parkinson H, Piccolo S, Pinheiro I, Pombo A, Popp C, Reik W, Roman-Roman S, Rosenstiel P, Schultze JL, Stegle O, Tanay A, Testa G, Thanos D, Theis FJ, Torres-Padilla ME, Valencia A, Vallot C, van Oudenaarden A, Vidal M, Voet T & LifeTime Community (2020)

*LifeTime and improving European healthcare through cell-based interceptive medicine*

**Nature** 587(7834):377-386 (co-authorship as member of LifeTime)

Hör J, Matera G, **Vogel J**, Gottesman S, Storz G (2020)

*Trans-acting small RNAs and their effects on gene expression in Escherichia coli and Salmonella enterica*

**EcoSal** 9(1):10.1128/ecosalplus.ESP-0030-2019

Gerovac M, **Vogel J** (2019)

*An RNA surprise in bacterial effector mechanisms*

**Cell Host & Microbe** 26(6):709-711

Holmqvist E, **Vogel J** (2018)

*RNA-binding proteins in bacteria*

**Nature Reviews Microbiology** 6(10):601-615

- Hör J, Gorski SA, **Vogel J** (2018)  
*Bacterial RNA biology on a genome scale*  
**Molecular Cell** 70(5):785-799
- Munschauer M, **Vogel J** (2018)  
*Nuclear lncRNA stabilization in the host response to bacterial infection*  
**EMBO Journal** 37(13) pii:e99875
- Gorski SA, **Vogel J**, Doudna JA (2017)  
*RNA-based Recognition and targeting: Sowing the seeds of specificity*  
**Nature Reviews Molecular Cell Biology** 18(4):215-228
- Hör J, **Vogel J** (2017)  
*Global snapshots of bacterial RNA networks*  
**EMBO Journal** 36(3):245-247
- Westermann AJ, Barquist L, **Vogel J** (2017)  
*Resolving host-pathogen interactions by Dual RNA-seq*  
**PLoS Pathogens** 13(2):e1006033
- Smirnov A, Schneider C, Hör J, **Vogel J** (2017)  
*Discovery of new RNA classes and global RNA-binding proteins*  
**Current Opinion in Microbiology** 39:152–160
- Saliba AE, Santos SC, **Vogel J** (2017)  
*New RNA-seq approaches for the study of bacterial pathogens*  
**Current Opinion in Microbiology** 35:78-87
- Marbaniang CM, **Vogel J** (2016)  
*Emerging roles of RNA modifications in bacteria*  
**Current Opinion Microbiology** 30:50-57
- Barquist L, Westermann AJ, **Vogel J** (2016)  
*Molecular phenotyping of infection-associated small noncoding RNAs*  
**Philosophical Transactions B** 371(1707):20160081
- Barquist L, **Vogel J** (2015)  
*Accelerating discovery and functional analysis of small RNAs with new technologies*  
**Annual Review of Genetics** 49:367-94
- Ziebuhr W, **Vogel J** (2015)  
*The end is not the end: remnants of tRNA precursors live on to sponge up small regulatory RNAs*  
**Molecular Cell** 58(3):389-90
- Miyakoshi M, Chao Y, **Vogel J** (2015)  
*Regulatory small RNAs from the 3' regions of bacterial mRNAs*  
**Current Opinion in Microbiology** 24:132-139
- Vogel J** (2014)  
*A bacterial seek-and-destroy system for foreign DNA*  
**Science** 344(6187):972-3
- Saliba AE, Westermann AJ, Gorski SA, **Vogel J** (2014)  
*Single-cell RNA-seq: advances and future challenges*  
**Nucleic Acids Research** 42(14):8845-60
- Sharma CM, **Vogel J** (2014)  
*Differential RNA-seq: the approach behind and the biological insight gained*  
**Current Opinion in Microbiology** 19:97-105

- Papenfort K, **Vogel J** (2014)  
*Small RNA functions in carbon metabolism and virulence of enteric pathogens*  
**Frontiers in Cellular and Infection Microbiology** 4:91
- Vogel J**, Gottesman S, Belasco JG, Narberhaus F (2014)  
*Meeting report: Regulating with RNA in Bacteria 2013*  
**RNA Biology** 11(5):403-12
- Heidrich N, **Vogel J** (2013)  
*Same same but different: new structural insight into CRISPR-Cas complexes*  
**Molecular Cell** 52(1):4-7
- Holmqvist E, **Vogel J** (2013)  
*A small RNA serving both the Hfq and CsrA regulons*  
**Genes & Development** 27:1073-8
- Heidrich N, **Vogel J** (2013)  
*CRISPRs extending their reach: Prokaryotic RNAi protein Cas9 recruited for gene regulation*  
**EMBO Journal** 32(13):1802-4
- Vogel J**, Bassler BL (2013)  
*Bacterial Regulatory Mechanisms: The gene and beyond*  
**Current Opinion in Microbiology** 16(2):109-11
- Westermann AJ, Gorski SA, **Vogel J** (2012)  
*Dual RNA-seq of pathogen and host*  
**Nature Reviews Microbiology** 10(9):618-30
- Eulalio A, Schulte LN, **Vogel J** (2012)  
*The mammalian microRNA response to bacterial infections*  
**RNA Biology** 9(6):742-50
- Boehm A, **Vogel J** (2012)  
*The csgD mRNA as a hub for signal integration via multiple small RNAs*  
**Molecular Microbiology** 84(1):1-5
- Vogel J**, Luisi BF (2011)  
*Hfq and its constellation of RNA*  
**Nature Reviews Microbiology** 9(8):578-89
- Storz G, **Vogel J**, Wassarman KM (2011)  
*Regulation by Small RNAs in Bacteria: Expanding Frontiers*  
**Molecular Cell** 43(6):880-91
- Papenfort K, **Vogel J** (2011)  
*Sweet business: Spot42 RNA networks with CRP to modulate catabolite repression*  
**Molecular Cell** 41(3):245-6
- Böhm A, Papenfort K, Lopez D, **Vogel J** (2011)  
*Microbes at their best: First Mol Micro Meeting Würzburg*  
**Molecular Microbiology** 82(4):797-806
- Papenfort K, **Vogel J** (2010)  
*Regulatory RNA in bacterial pathogens*  
**Cell Host & Microbe** 8(1):116-27
- Podkaminski D, **Vogel J** (2010)  
*Small RNAs promote mRNA stability to activate the synthesis of virulence factors*  
**Molecular Microbiology** 78(6):1327-31



- Chao Y, **Vogel J** (2010)  
*The role of Hfq in bacterial pathogens*  
**Current Opinion in Microbiology** 13(1):24-33
- Sharma CM, **Vogel J** (2009)  
*Experimental approaches for the discovery and characterization of regulatory small RNA*  
**Current Opinion in Microbiology** 12(5):536-46
- Fröhlich K, **Vogel J** (2009)  
*Activation of gene expression by small RNA*  
**Current Opinion in Microbiology** 12(6):674-82
- Narberhaus F, **Vogel J** (2009)  
*Regulatory RNAs in prokaryotes: Here, there and everywhere*  
**Molecular Microbiology** 74(2):261-269
- Vogel J** (2009)  
*An RNA trap helps bacteria get the most of out of chitobiose*  
**Molecular Microbiology** 73(5):737-741
- Vogel J** (2009)  
*A rough guide to the noncoding RNA world of Salmonella*  
**Molecular Microbiology** 71(1):1-11
- Papenfort K, **Vogel J** (2009)  
*Multiple target regulation by small noncoding RNAs rewires gene expression at the post-transcriptional level*  
**Research in Microbiology** 160:278-287
- Görke B, **Vogel J** (2008)  
*Noncoding RNA functions in the making and breaking of sugars*  
**Genes & Development** 22(21):2914-25
- Sittka A, **Vogel J** (2008)  
*A glimpse at the evolution of virulence control*  
**Cell Host & Microbe** 4:310-312
- Vogel J**, Wagner EGH (2007)  
*Target identification of small non-coding RNAs in bacteria*  
**Current Opinion in Microbiology** 10:262-270
- Narberhaus F, **Vogel J** (2007)  
*Sensory and regulatory RNAs in prokaryotes: A new German research focus*  
**RNA Biology** 4(3):160-164
- Arraiano CM, Bamford J, Brüssow H, Carpousis AJ, Pelicic V, Pflüger K, Polard P, **Vogel J** (2007)  
*Recent Advances on the Expression, Evolution and Dynamics of Prokaryotic Genomes*  
**Journal of Bacteriology** 189(17):6093-6100
- Vogel J**, Papenfort K (2006)  
*Small non-coding RNAs and the bacterial outer membrane*  
**Current Opinion in Microbiology** 9(6):605-611
- Hüttenhofer A, **Vogel J** (2006)  
*Experimental approaches to identify noncoding RNAs*  
**Nucleic Acids Research** 34(2):635-46
- Vogel J**, Sharma CM (2005)  
*How to find small non-coding RNAs in bacteria*  
**Biological Chemistry** 386(11):1219-38

Bonen L, Vogel J (2001)  
*The ins and outs of group II introns*  
**Trends in Genetics** 17(6):322-331

## Book chapters

Homberger H, Saliba AE, Vogel J (2022)  
*A MATQ-seq-Based Protocol for Single-Cell RNA-seq in Bacteria*  
**Methods in Molecular Biology** in press

Hör J, Vogel J (2021)  
*Analysis of the RNA and Protein Complexome by Grad-seq*  
**Methods in Molecular Biology** 2300:183-201

Westermann AJ, Vogel J (2018)  
*Host-pathogen transcriptomics by Dual RNA-seq*  
**Methods in Molecular Biology** 1737:59-75

Heidrich N, Dugar G, Vogel J, Sharma CM (2015)  
*Investigating CRISPR RNA biogenesis and function using RNA-seq*  
**Methods in Molecular Biology** 1311:1-21

Podkaminski D, Bouvier M, Vogel J (2014)  
*Identification and characterization of small noncoding RNAs in bacteria*  
 In: **Handbook of RNA Biochemistry** (eds. Hartmann RK, Bindereif A, Schön A, Westhof E), Wiley-VCH

Caldelari I, Chao Y, Romby P, Vogel J (2013)  
*RNA-mediated regulation in pathogenic bacteria*  
**Cold Spring Harb Perspect Med** 3(9)

Papenfort K, Corcoran CP, Gupta SK, Miyakoshi M, Heidrich N, Chao Y, Fröhlich KS, Sharma CM, Ziebuhr W, Böhm A, Vogel J (2013)  
*Regulatory Mechanisms of Special Significance: The role of sRNAs in Virulence Regulation*  
 In: **Regulation of Bacterial Virulence** (eds. Darwin AJ, Vasil ML), ASM Press, pp493-527

Borries A, Vogel J, Sharma CM (2012)  
*Differential RNA sequencing (dRNA-seq): Deep-sequencing based analysis of primary transcriptomes*  
 In: **Tag-based Approaches for Next-Generation Sequencing**, Eds. M. Harbers, G. Kahl, Wiley-Blackwell-VCH

Corcoran CP, Rieder R, Podkaminski D, Hofmann B, Vogel J (2012)  
*Use of aptamer tagging to identify in vivo protein binding partners of small regulatory RNAs*  
**Methods in Molecular Biology** 905:177-200

Corcoran C, Papenfort K, Vogel J (2011)  
*Hfq-associated regulatory small RNAs*  
 In: **Regulatory RNAs in Prokaryotes** (eds. A. Marchfelder, W.R. Hess), Springer Germany; pp15-50

Javayel S, Papenfort K, Vogel J (2010)  
*The small RNAs of Salmonella*  
**Salmonella: From Genome to Function** (Edited by S. Prowollik), Caister Academic Press; ISBN: 978-1-904455-73-8

Vogel J (2009)  
*A small RNA cascade regulates aminosugar synthesis*  
**Nova Acta Leopoldina** 378:41-50

Urban JH, Vogel J (2009)  
*A green fluorescent protein (GFP) based plasmid system to study post-transcriptional control of gene expression in vivo*  
**Methods in Molecular Biology** 540:301-19

Henry AA, Vogel J (2008)  
*Noncoding RNAs*  
 In: **Wiley Encyclopedia of Chemical Biology (WECB)** John Wiley & Sons, Ltd

**Vogel J**, Wagner EGH (2005)

*RNA mining*

In: **Handbook of RNA Biochemistry** (eds. Hartmann RK, Bindereif A, Schön A, Westhof E), Wiley-VCH, Vol 2:595-613

Wagner EGH, **Vogel J** (2005)

*Functional analysis of identified non-mRNAs*

In: **Handbook of RNA Biochemistry** (eds. Hartmann RK, Bindereif A, Schön A, Westhof E), Wiley-VCH, Vol 2:614-642

Wagner EGH, **Vogel J** (2003)

*Noncoding RNAs encoded by bacterial chromosomes*

In: **Noncoding RNAs** (eds. Barciszewski J, Erdmann V), Landes Bioscience, 243-259