Strain-resolved analysis of hospital rooms and infants rand room microbiome

Nature Communications 8, 1814

DOI: 10.1038/s41467-017-02018-w

Citation Report

#	Article	IF	Citations
1	Hospitalized Premature Infants Are Colonized by Related Bacterial Strains with Distinct Proteomic Profiles. MBio, $2018,9,.$	1.8	34
2	Machine Learning Leveraging Genomes from Metagenomes Identifies Influential Antibiotic Resistance Genes in the Infant Gut Microbiome. MSystems, 2018, 3, .	1.7	68
3	Birth mode is associated with earliest strain-conferred gut microbiome functions and immunostimulatory potential. Nature Communications, 2018, 9, 5091.	5.8	190
4	Genetic relatedness of Gram-negative bacteria colonizing gut and skin of neonates and mother's own milk. Journal of Perinatology, 2018, 38, 1503-1511.	0.9	4
5	Higher intake of coagulase-negative staphylococci from maternal milk promotes gut colonization with mecA-negative Staphylococcus epidermidis in preterm neonates. Journal of Perinatology, 2018, 38, 1344-1352.	0.9	3
6	The developing premature infant gut microbiome is a major factor shaping the microbiome of neonatal intensive care unit rooms. Microbiome, 2018, 6, 112.	4.9	65
7	Mother-to-Infant Microbial Transmission from Different Body Sites Shapes the Developing Infant Gut Microbiome. Cell Host and Microbe, 2018, 24, 133-145.e5.	5.1	822
8	Application of machine learning techniques for creating urban microbial fingerprints. Biology Direct, 2019, 14, 13.	1.9	29
9	What Pediatricians Should Know Before Studying Gut Microbiota. Journal of Clinical Medicine, 2019, 8, 1206.	1.0	8
10	Multifaceted mechanisms of colistin resistance revealed by genomic analysis of multidrug-resistant Klebsiella pneumoniae isolates from individual patients before and after colistin treatment. Journal of Infection, 2019, 79, 312-321.	1.7	24
11	Hybrid metagenomic assembly enables high-resolution analysis of resistance determinants and mobile elements in human microbiomes. Nature Biotechnology, 2019, 37, 937-944.	9.4	216
12	The role of the preterm intestinal microbiome in sepsis and necrotising enterocolitis. Early Human Development, 2019, 138, 104854.	0.8	48
13	Feeding intolerance alters the gut microbiota of preterm infants. PLoS ONE, 2019, 14, e0210609.	1.1	19
14	Prospective surveillance of bacterial colonization and primary sepsis: findings of a tertiary neonatal intensive and intermediate care unit. Journal of Hospital Infection, 2019, 102, 325-331.	1.4	24
15	Longitudinal Gut Bacterial Colonization and Its Influencing Factors of Low Birth Weight Infants During the First 3 Months of Life. Frontiers in Microbiology, 2019, 10, 1105.	1.5	18
16	Longitudinal homogenization of the microbiome between both occupants and the built environment in a cohort of United States Air Force Cadets. Microbiome, 2019, 7, 70.	4.9	33
17	The Water Microbiome Through a Pilot Scale Advanced Treatment Facility for Direct Potable Reuse. Frontiers in Microbiology, 2019, 10, 993.	1.5	36
18	Breastmilk and NICU surfaces are potential sources of fungi for infant mycobiomes. Fungal Genetics and Biology, 2019, 128, 29-35.	0.9	27

#	Article	IF	CITATIONS
19	Using formalin fixed paraffin embedded tissue to characterize the preterm gut microbiota in necrotising enterocolitis and spontaneous isolated perforation using marginal and diseased tissue. BMC Microbiology, 2019, 19, 52.	1.3	24
20	Ten questions concerning the built environment and mental health. Building and Environment, 2019, 155, 58-69.	3.0	68
21	In-host evolution of Staphylococcus epidermidis in a pacemaker-associated endocarditis resulting in increased antibiotic tolerance. Nature Communications, 2019, 10, 1149.	5.8	64
22	The Microbiome, Metabolome, and Proteome in Preterm Neonatal Sepsis. , 2019, , 279-285.		0
23	Longitudinal Microbiome Composition and Stability Correlate with Increased Weight and Length of Very-Low-Birth-Weight Infants. MSystems, 2019, 4, .	1.7	51
24	Genome-resolved metagenomics of eukaryotic populations during early colonization of premature infants and in hospital rooms. Microbiome, 2019, 7, 26.	4.9	60
25	Gut microbiota development of preterm infants hospitalised in intensive care units. Beneficial Microbes, 2019, 10, 641-651.	1.0	31
26	Maternal milk and fecal microbes guide the spatiotemporal development of mucosa-associated microbiota and barrier function in the porcine neonatal gut. BMC Biology, 2019, 17, 106.	1.7	51
27	Microbial transmission from mother to child: improving infant intestinal microbiota development by identifying the obstacles. Critical Reviews in Microbiology, 2019, 45, 613-648.	2.7	30
28	Necrotizing enterocolitis is preceded by increased gut bacterial replication, <i>Klebsiella </i> , and fimbriae-encoding bacteria. Science Advances, 2019, 5, eaax5727.	4.7	120
29	Extensive Unexplored Human Microbiome Diversity Revealed by Over 150,000 Genomes from Metagenomes Spanning Age, Geography, and Lifestyle. Cell, 2019, 176, 649-662.e20.	13.5	1,087
30	A One Health Study of the Genetic Relatedness of Klebsiella pneumoniae and Their Mobile Elements in the East of England. Clinical Infectious Diseases, 2020, 70, 219-226.	2.9	46
31	Novel photodynamic coating reduces the bioburden on near-patient surfaces thereby reducing the risk for onward pathogen transmission: a field study in two hospitals. Journal of Hospital Infection, 2020, 104, 85-91.	1.4	22
32	Genetic relationship between bacteria isolated from intraoperative air samples and surgical site infections at a major teaching hospital in Ghana. Journal of Hospital Infection, 2020, 104, 309-320.	1.4	8
33	Fungal cutaneous microbiome and host determinants in preterm and term neonates. Pediatric Research, 2020, 88, 225-233.	1.1	13
34	Acquisition and Development of the Extremely Preterm Infant Microbiota Across Multiple Anatomical Sites. Journal of Pediatric Gastroenterology and Nutrition, 2020, 70, 12-19.	0.9	16
35	Assessment of Neonatal Intensive Care Unit Practices and Preterm Newborn Gut Microbiota and 2-Year Neurodevelopmental Outcomes. JAMA Network Open, 2020, 3, e2018119.	2.8	44
36	Exploring the Role of Gut Bacteria in Health and Disease in Preterm Neonates. International Journal of Environmental Research and Public Health, 2020, 17, 6963.	1.2	32

#	Article	IF	CITATIONS
37	Comparison of the gut microbiota of short-term and long-term medical workers and non-medical controls: a cross-sectional analysis. Clinical Microbiology and Infection, 2021, 27, 1285-1292.	2.8	6
38	Continental-Scale Microbiome Study Reveals Different Environmental Characteristics Determining Microbial Richness, Composition, and Quantity in Hotel Rooms. MSystems, 2020, 5, .	1.7	20
39	Diversity within species: interpreting strains in microbiomes. Nature Reviews Microbiology, 2020, 18, 491-506.	13.6	222
40	Cartography of opportunistic pathogens and antibiotic resistance genes in a tertiary hospital environment. Nature Medicine, 2020, 26, 941-951.	15.2	130
41	Accurate and complete genomes from metagenomes. Genome Research, 2020, 30, 315-333.	2.4	263
42	Combined analysis of microbial metagenomic and metatranscriptomic sequencing data to assess in situ physiological conditions in the premature infant gut. PLoS ONE, 2020, 15, e0229537.	1.1	8
43	Influence of Maternal Milk on the Neonatal Intestinal Microbiome. Nutrients, 2020, 12, 823.	1.7	83
44	Understanding building-occupant-microbiome interactions toward healthy built environments: A review. Frontiers of Environmental Science and Engineering, 2021, 15, 65.	3.3	24
45	Evolution of the environmental microbiota of a new neonatal intensive care unit (NICU) and implications for infection prevention and control. Infection Control and Hospital Epidemiology, 2021, 42, 156-161.	1.0	1
47	Settlers of our inner surface – factors shaping the gut microbiota from birth to toddlerhood. FEMS Microbiology Reviews, 2021, 45, .	3.9	26
48	Early Life Microbiotaâ€"Impact of Delivery Mode and Infant Feeding. , 2022, , 25-38.		1
49	The effect of early probiotic exposure on the preterm infant gut microbiome development. Gut Microbes, 2021, 13, 1951113.	4.3	26
50	Improved metagenome binning and assembly using deep variational autoencoders. Nature Biotechnology, 2021, 39, 555-560.	9.4	251
51	Metagenomic analysis of mother-infant gut microbiome reveals global distinct and shared microbial signatures. Gut Microbes, 2021, 13, 1-24.	4.3	18
52	Approaches for characterizing and tracking hospital-associated multidrug-resistant bacteria. Cellular and Molecular Life Sciences, 2021, 78, 2585-2606.	2.4	21
53	Comparative genomics of two Shewanella xiamenensis strains isolated from a pilgrim before and during travels to the Hajj. Gut Pathogens, 2021, 13, 9.	1.6	5
54	Impact of Probiotic B. infantis EVC001 Feeding in Premature Infants on the Gut Microbiome, Nosocomially Acquired Antibiotic Resistance, and Enteric Inflammation. Frontiers in Pediatrics, 2021, 9, 618009.	0.9	38
55	Phylogenomic Framework for Taxonomic Delineation of Paracoccus spp. and Exploration of Core-Pan Genome. Indian Journal of Microbiology, 2021, 61, 180-194.	1.5	3

#	ARTICLE	lF	Citations
56	Gut Microbiome over a Lifetime and the Association with Hypertension. Current Hypertension Reports, 2021, 23, 15.	1.5	10
57	Microbial Sharing between Pediatric Patients and Therapy Dogs during Hospital Animal-Assisted Intervention Programs. Microorganisms, 2021, 9, 1054.	1.6	9
58	Characterization of the public transit air microbiome and resistome reveals geographical specificity. Microbiome, 2021, 9, 112.	4.9	26
60	Genetic and behavioral adaptation of Candida parapsilosis to the microbiome of hospitalized infants revealed by in situ genomics, transcriptomics, and proteomics. Microbiome, 2021, 9, 142.	4.9	14
61	Human host status inference from temporal microbiome changes via recurrent neural networks. Briefings in Bioinformatics, 2021, 22, .	3.2	11
62	A global metagenomic map of urban microbiomes and antimicrobial resistance. Cell, 2021, 184, 3376-3393.e17.	13.5	164
64	Nanopore Sequencing Provides Rapid and Reliable Insight Into Microbial Profiles of Intensive Care Units. Frontiers in Public Health, 2021, 9, 710985.	1.3	18
65	Impact of Delivery Mode on Infant Gut Microbiota. Annals of Nutrition and Metabolism, 2021, 77, 11-19.	1.0	27
66	Escaping the fate of Sisyphus: assessing resistome hybridization baits for antimicrobial resistance gene capture. Environmental Microbiology, 2021, 23, 7523-7537.	1.8	3
67	Infant gut strain persistence is associated with maternal origin, phylogeny, and traits including surface adhesion and iron acquisition. Cell Reports Medicine, 2021, 2, 100393.	3.3	39
69	A systematic review of the factors influencing microbial colonization of the preterm infant gut. Gut Microbes, 2021, 13, 1-33.	4.3	38
70	inStrain profiles population microdiversity from metagenomic data and sensitively detects shared microbial strains. Nature Biotechnology, 2021, 39, 727-736.	9.4	238
71	Forensic genomics of a novel Klebsiella quasipneumoniae type from a neonatal intensive care unit in China reveals patterns of colonization, evolution and epidemiology. Microbial Genomics, 2020, 6, .	1.0	12
79	Distribution of Phototrophic Purple Nonsulfur Bacteria in Massive Blooms in Coastal and Wastewater Ditch Environments. Microorganisms, 2020, 8, 150.	1.6	10
80	Early-life formula feeding is associated with infant gut microbiota alterations and an increased antibiotic resistance load. American Journal of Clinical Nutrition, 2022, 115, 407-421.	2.2	29
81	Rapid methicillin resistance diversification in Staphylococcus epidermidis colonizing human neonates. Nature Communications, 2021, 12, 6062.	5.8	6
82	Antimicrobial coatings for environmental surfaces in hospitals: a potential new pillar for prevention strategies in hygiene. Critical Reviews in Microbiology, 2022, 48, 531-564.	2.7	18
83	Microbial colonization and resistome dynamics in food processing environments of a newly opened pork cutting industry during 1.5 years of activity. Microbiome, 2021, 9, 204.	4.9	20

#	Article	IF	CITATIONS
90	Unraveling the Microbiome of Necrotizing Enterocolitis: Insights in Novel Microbial and Metabolomic Biomarkers. Microbiology Spectrum, 2021, 9, e0117621.	1.2	30
91	Microbiome establishment and maturation: early life environmental factors., 2020,, 21-41.		2
94	Antimicrobial Properties of Chitosan and Chitosan Derivatives in the Treatment of Enteric Infections. Molecules, 2021, 26, 7136.	1.7	126
95	WORKbiota: A Systematic Review about the Effects of Occupational Exposure on Microbiota and Workers' Health. International Journal of Environmental Research and Public Health, 2022, 19, 1043.	1.2	5
96	Rare transmission of commensal and pathogenic bacteria in the gut microbiome of hospitalized adults. Nature Communications, 2022, 13, 586.	5.8	21
97	B. infantis EVC001 Is Well-Tolerated and Improves Human Milk Oligosaccharide Utilization in Preterm Infants in the Neonatal Intensive Care Unit. Frontiers in Pediatrics, 2021, 9, 795970.	0.9	5
99	The Microbiota-Gut Axis in Premature Infants: Physio-Pathological Implications. Cells, 2022, 11, 379.	1.8	18
100	Computational analyses of bacterial strains from shotgun reads. Briefings in Bioinformatics, 2022, 23,	3.2	5
101	Ecological Processes Shaping Microbiomes of Extremely Low Birthweight Infants. Frontiers in Microbiology, 2022, 13, 812136.	1.5	5
102	Shared signatures and divergence in skin microbiomes of children with atopic dermatitis and their caregivers. Journal of Allergy and Clinical Immunology, 2022, 150, 894-908.	1.5	14
103	Integrating longitudinal clinical and microbiome data to predict growth faltering in preterm infants. Journal of Biomedical Informatics, 2022, 128, 104031.	2.5	3
104	A microbiome study reveals the potential relationship between the bacterial diversity of a gymnastics hall and human health. Scientific Reports, 2022, 12, 5663.	1.6	1
105	Metagenomics-enabled microbial surveillance. Nature Microbiology, 2022, 7, 486-496.	5.9	83
107	Influence of the Incubator as Direct Patient Environment on Bacterial Colonization of Neonates. Microorganisms, 2021, 9, 2533.	1.6	1
113	Influence of caesarean section on intestinal microbiota newborn from the perspective of a neonatologist. Pediatrie Pro Praxi, 2022, 23, 156-162.	0.1	0
114	Selective Maternal Seeding and Rearing Environment From Birth to Weaning Shape the Developing Piglet Gut Microbiome. Frontiers in Microbiology, 2022, 13, 795101.	1.5	6
115	The resistance within: Antibiotic disruption of the gut microbiome and resistome dynamics in infancy. Cell Host and Microbe, 2022, 30, 675-683.	5.1	22
116	The developing infant gut microbiome: A strain-level view. Cell Host and Microbe, 2022, 30, 627-638.	5.1	29

#	Article	IF	CITATIONS
117	The hospital environment versus carriage: transmission pathways for third-generation cephalosporin-resistant bacteria in blood in neonates in a low-resource country healthcare setting. Scientific Reports, 2022, 12, 8347.	1.6	1
118	Rapid evolution and strain turnover in the infant gut microbiome. Genome Research, 2022, 32, 1124-1136.	2.4	22
119	Antibiotic-resistant organisms establish reservoirs in new hospital built environments and are related to patient blood infection isolates. Communications Medicine, 2022, 2, .	1.9	21
120	Islet autoantibody seroconversion in type-1 diabetes is associated with metagenome-assembled genomes in infant gut microbiomes. Nature Communications, 2022, 13 , .	5.8	8
121	A comparison of bacterial colonization between nasogastric and orogastric enteral feeding tubes in infants in the neonatal intensive care unit. Journal of Perinatology, 2022, 42, 1446-1452.	0.9	7
122	Metabolic model of necrotizing enterocolitis in the premature newborn gut resulting from enteric dysbiosis. Frontiers in Pediatrics, 0, 10 , .	0.9	8
123	Capturing the antibiotic resistome of preterm infants reveals new benefits of probiotic supplementation. Microbiome, 2022, 10, .	4.9	16
124	Infant gut microbiota restoration: state of the art. Gut Microbes, 2022, 14, .	4.3	5
125	A compendium of 32,277 metagenome-assembled genomes and over 80 million genes from the early-life human gut microbiome. Nature Communications, 2022, 13, .	5.8	23
126	Clinically relevant pathogens on surfaces display differences in survival and transcriptomic response in relation to probiotic and traditional cleaning strategies. Npj Biofilms and Microbiomes, 2022, 8, .	2.9	3
127	MDITRE: Scalable and Interpretable Machine Learning for Predicting Host Status from Temporal Microbiome Dynamics. MSystems, 2022, 7, .	1.7	1
128	Effect of Breastmilk Microbiota and Sialylated Oligosaccharides on the Colonization of Infant Gut Microbial Community and Fecal Metabolome. Metabolites, 2022, 12, 1136.	1.3	5
129	An improved workflow for accurate and robust healthcare environmental surveillance using metagenomics. Microbiome, 2022, 10 , .	4.9	3
130	Sex differences in the oral microbiome, host traits, and their causal relationships. IScience, 2023, 26, 105839.	1.9	9
131	Effects of Perinatal Antibiotic Exposure and Neonatal Gut Microbiota. Antibiotics, 2023, 12, 258.	1.5	8
132	Using strain-resolved analysis to identify contamination in metagenomics data. Microbiome, 2023, 11 , .	4.9	7
133	The Role of Coagulase-Negative Staphylococci Biofilms on Late-Onset Sepsis: Current Challenges and Emerging Diagnostics and Therapies. Antibiotics, 2023, 12, 554.	1.5	7
134	Characterization of SARS-CoV-2 Distribution and Microbial Succession in a Clinical Microbiology Testing Facility during the SARS-CoV-2 Pandemic. Microbiology Spectrum, 2023, 11, .	1.2	0

#	Article	IF	CITATIONS
135	Niche-Based Microbial Community Assemblage in Urban Transit Systems and the Influence of City Characteristics. Microbiology Spectrum, 2023, 11 , .	1.2	0
136	Metagenomic Sequencing in the ICU for Precision Diagnosis of Critical Infectious Illnesses. Annual Update in Intensive Care and Emergency Medicine, 2023, , 15-25.	0.1	0
137	Metagenomic Sequencing in the ICU for Precision Diagnosis of Critical Infectious Illnesses. Critical Care, 2023, 27, .	2.5	5
138	¿Las exposiciones laborales pueden alterar la microbiota humana?. Archivos De Prevención De Riesgos Laborales, 2023, 26, 150-154.	0.1	0
159	The infant gut microbiota as the cornerstone for future gastrointestinal health. Advances in Applied Microbiology, 2024, , 93-119.	1.3	0