

JEREMY J. BARR

25 Rainforest Walk, Clayton Campus
School of Biological Sciences, Monash University
Centre to Impact AMR

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Academic Level: C (Effective 1st July, 2020) **Employment:** Tenured T&R position **Fraction:** 1.0 Full Time

[Lab Website](#) | [Google Scholar](#) | [Linked In](#) | [Twitter](#) | [Publons](#) | [Monash Profile](#)

BIOGRAPHY

I completed my PhD in microbiology and engineering at The University of Queensland in 2011 under the supervision of Prof. Phil Bond, Prof. [Gene Tyson](#) and Prof. [Linda Blackall](#). I then moved to San Diego, USA to complete a postdoctoral position working under the tutelage of Prof. [Forest Rohwer](#) at San Diego State University. In 2016, I joined Monash University, School of Biological Sciences where I began my first independent laboratory in Bacteriophage Biology. In 2020, I joined the Centre to Impact AMR to establish non-drug solutions to combat antibiotic resistance.

RESEARCH IMPACT

My research investigates the interactions of bacteriophages – viruses that infect bacteria – and their tripartite interactions with their bacterial and mammalian hosts. My laboratory uses experimental biology and a range of cross-disciplinary techniques to investigate fundamental, mechanistic, and applied bacteriophage biology. My key research impacts to date include:

- *Barr et al., (2013) PNAS*: I proposed the Bacteriophage Adherence to Mucus (BAM) model as a non-host derived layer of immunity, whereby phages adhering to mucus reduce bacterial colonization of these surfaces, protecting them from infection.
- *Schooley et al., (2017) Anti. Agents. Chemo*: I was involved in the Tom Patterson phage therapy case study where I purified and prepared the phage lysates that were used intravenously to combat a disseminated, multidrug-resistant, *Acinetobacter baumannii* infection.
- *Gordillo Altamirano et al., (2021 Nature Micro*: I led this research output that emerged from a foundational observational made during a phage therapy case. This established a new paradigm whereby bacteria were killed by phages but quickly became phage-resistant, yet in doing so, they were re-sensitised to antibiotics they use to resist.

QUALIFICATIONS

2011: *Doctor of Philosophy*, University of Queensland. PhD Advisors: Phil Bond, Gene Tyson & Linda Blackall.

2010: *Graduate Certificate in Research Commercialisation*, University of Queensland.

2006: *Bachelor of Biotechnology, Honours Class I*, University of Queensland.

APPOINTMENTS

2020-present: *Senior Lecturer & Group Leader* (Level C). Monash University.

2016-2020: *Lecturer & Group Leader* (Level B). Monash University.

2015-2016: *Professor of Practice* (Rohwer Lab). San Diego State University.

2011-2015: *Post-doctoral Research Fellow* (Rohwer Lab). San Diego State University.

AWARDS AND HONOURS

Vice-Chancellor's Award for Research Excellence by an Early Career Researcher, Monash University, \$10k. 2021
Young Tall Poppy Science Award. 2021

Research Excellence by Early Career Researcher, Faculty of Science, Monash University. 2021

Purple Award for Excellence in Teaching, Monash University. 2019

Commendation for Teaching, Monash University. 2018

InnoHealth Australia. Award and innovation tour of Germany. 2018

AusME. Award for early-career science. 2017

Cold Spring Harbor Laboratory. Workshop on Leadership in Bioscience, \$775 USD. 2016

Zahn Innovation Centre. 1st place in Pitch Fest. 2015

CIBER. International Award for biotechnology, \$6500 USD. 2015

SDSU President's Scholar. Competitive salary and research award, \$120k USD. 2014

Viruses of Microbes. Conference travel grant, \$1000. 2014
 AusBiotech–GSK Student Excellence Award. 2010
 UQ Teaching Excellence Award. 2010
 Australian Government. Research Commercialisation Training Scheme scholarship, \$16k. 2009
 ASM–Becton Dickenson PhD Award. 2009
 ASPD5 Conference. Best Presentation Award. 2009
 ISME Student Award. 2009
 Honours 1st Class, University of Queensland. 2006
 Dean’s commendation for high achievement, University of Queensland. 2006
 Dean’s commendation for high achievement, University of Queensland. 2003

AWARDS RECEIVED BY MY STUDENTS

Mollie Holman Award for best doctoral thesis, Faculty of Science, Monash University, 2021.	Fernando A. Gordillo
ASM Summer Student Research Awards, 2021	Rylee Dehan
Ten Outstanding Young Persons of the World, Junior Chamber International, 2021	Fernando A. Gordillo
Commonwealth Indigenous Support & Relocation Scholarships (\$12,000), 2021	Rylee Dehan
International Student of the Year for Research, Study Melbourne, 2020.	Fernando A. Gordillo
3 Minute Thesis Competition, School & Faculty Winner, Monash University, 2020	Fernando A. Gordillo
ASM Nancy Millis PhD Award, Australian Society for Microbiology, 2020	Marion Bichet
Outstanding Publication Award, School of Biological Sciences, Monash University, 2019	Fernando A. Gordillo
Award for Outstanding Author Contribution, Faculty of Science, Monash University, 2019	Fernando A. Gordillo
Travel Grant (\$2500), Monash Institute of Medical Engineering, 2019	Fernando A. Gordillo
ASM Nancy Millis PhD Award, Australian Society for Microbiology, 2019	Fernando A. Gordillo

CURRENT FUNDING

2021 ARC Discovery Project	01/01/21–31/12/24
Direct Costs: \$536,190	CIA: Jeremy J Barr
“Moving Beyond Predictions: Discovery of novel bacteriophages from the human microbiome”	
NIH R21	01/01/21–31/12/22
Direct Costs: \$485,760	CIB: Jeremy J Barr
“Towards the Translation of Synergistic Phage-Polymyxin Combination Therapy against Pandrug-resistant <i>Klebsiella pneumoniae</i> ”	
MRFF Frontier Health Medical Research Stage 1	01/07/21–30/06/22
Direct Costs: \$999,999	CIM: Jeremy J Barr
“PHAGE Australia: Establishing a national network for phage therapeutics”	
Centre to Impact AMR Research Fund	01/04/21–30/03/22
Direct Costs: \$50,000	CIC: Jeremy J Barr
“Long term survivors: The social burden of antimicrobial resistance in Australia”	

PREVIOUS FUNDING

2018 NHMRC New Investigator Grant	01/01/19–31/12/21
Direct Costs: \$579,920	CIA: Jeremy J Barr
“Bacteriophage therapy increases antibiotic sensitivities in multiply antibiotic resistant <i>Acinetobacter baumannii</i> ”	
Ramaciotii Health Investment Grant	01/01/19–31/12/21
Direct Costs: \$137,534. Matched Funding: \$137,534.	CIA: Jeremy J Barr
“Development of a novel bacteriophage treatment regime to combat and re-sensitise multiply antibiotic resistant <i>Acinetobacter baumannii</i> infections”	
Monash University, Interdisciplinary Research Support Scheme	01/09/18–31/08/19
Direct Costs: \$48,740	CIA: Jeremy J Barr
“Tripartite Symbiosis: interactions between the gut bacteria, phages and epithelium”	

- 2017** Discovery Early Career Researcher Award (DECRA) 01/01/17–31/12/19
 Australian Research Council (ARC) CIA: Jeremy J. Barr
 Direct Costs: \$293,124 salary and \$78,876 research support (AUD)
 DE170100525: “Mucus Control – Applying concepts from bacteriophage-mucus interactions”
- Monash University, Interdisciplinary Research Seed Fund Scheme 01/09/17–31/08/18
 Direct Costs: \$29,917 (AUD) CIA: Jeremy J. Barr
 “Antibiotic-bacteriophage synergy against multidrug-resistant *Acinetobacter baumannii*”
- 2015** SDSU Presidential Scholarship 01/02/15–31/01/16
 Initiative 3: Contribution to the Advancement of the San Diego Region CIA: Jeremy J. Barr
 Direct Costs: \$70,000 salary and \$50,000 research support (USD)

TEACHING EXPERIENCE

Main courses: Research in Action (BIO3990: Monash University; Sem 1&2 2017, 2018, 2021); Medical and Forensic Genetics (GEN3051: Monash University; Sem 1 2017 – present); Master’s in Advanced Genetics and Biotechnology (GEN5010: Monash University; Sem 2 2018 – present); Master’s in Genomic Analytics (GNA5011: Monash University; Sem 2 2022 – present *course co-ordinator).

Other guest lecturer: Molecular virology and viral pathogenesis (MIC3022: Monash University; Sem 2 2017 – present); General Microbiology (SDSU; Sem 1 2013, 2014, 2015); Integrative Microbiology (UCSD; Sem 2 2013, 2014, 2015); Microbial Diversity (Occidental College; Sem 1 2014).

MENTORING

Doctoral students

Ella Gillis (Monash Central Scholarship; 2022–), Leo Kahn (Monash Central Scholarship; 2022–), Natasha Smith (Monash Central Scholarship; 2022–), Silpa Mariya (IITB–Monash Joint Scholarship; 2019–), Laura Avellaneda Franco (Monash Central Scholarship; 2019–), Sofia Dahlman (Monash Central Scholarship; 2018–2022), Duhita Sant (Monash, co-supervised with Mike McDonald; 2018–), Robert Garcia (Warwick–Monash Joint Scholarship, co-supervised with Alfonso Jaramillo; 2018–), Wai Hoe Chin (Monash Central Scholarship; 2018–2021), Marion Bichet (Monash Central Scholarship; 2018–2021), Fernando Gordillo Altamirano (Monash Central Scholarship; 2017–2021).

Master’s students

Matt King (Monash Masters in Biotechnology; 2021–), Siddarth Narambath (Monash Masters in Biotechnology; 2020–2021), Ciaren Kett (Monash Masters in Biotechnology; 2019–2020), Luisa Kielty (Monash Masters in Biotechnology; 2019–2020), Sophie Nguyen (SDSU Masters in Biology; 2014–2016), Nicholas Samson (SDSU Masters in Engineering; 2013–2015), Natash Talago (SDSU Masters in Biology; 2013–2015).

Honours students

Josh McGinty (Monash University; 2022), Rylee Deehan (Monash University; 2021), Avindya Perera (Monash University; 2020), John Forsyth (Monash University; 2019), Vanessa Calcinotto (Monash University; 2018).

Undergraduate Studnets

Michael Bucher (Monash University, 3990 student; 2023), Rafay Rizwan (Monash University, 3990 student; 2022), Dawoud Al-Mekhlid (Monash University, 3990 student; 2021), Tatiana Broidy (Monash University, 3990 student; 2019), Will Richards (Monash University, 3990 student; 2018), Mike Trim (Monash University, 3990 student; 2018), Vanessa Calcinotto (Monash University, 3990 student; 2017), Cody Oliveira (Monash University, 3990 student; 2017), Angel Liang (Monash University, 3990 student; 2017), Giuliano Cruz (SDSU, Brazilian Scientific Mobility Program; 2015), Rita Auro (SDSU; 2013–2016).

Researchers and Technicians

Isa Magnin-Bougma (Monash University; Lab Manager; 2022–), Ciaren Kett (Monash University; Research Technician; 2020–2022), Dinesh Subedi (Monash University, Post-doc; 2019–), Fang Tang (Nanjing University, Visiting Scholar; 2019–2020), Ruzeen Patwa (Monash University, Lab Manager; 2017–).

CONFERENCES & INVITED TALKS

- 2023** Microbiome Virtual Forum, Australia. *Invited Speaker*
Belgium Virus of Microbes Seminar. *Invited Speaker*
- 2022** International Committee on Antimicrobial Chemotherapy, Perth, Australia. *Invited Speaker*
Flinders University, Adelaide, Australia. *Departmental Seminar*
National Institute of Health (NIH), USA. *Departmental Seminar*
Infectious Disease Week Conference, Washington DC, USA. *Invited Speaker*
Viruses of Microbes Meeting, Portugal. *Invited speaker*
Herborn Meeting on the ‘Empire of the Bacteriophage’, Germany. *Keynote speaker*
FAESAB Glycobiology Meeting, Portugal. *Invited Speaker*
ESCMID Personalised Phage Therapy, Australia. *Invited Speaker*
University of Melbourne, Melbourne, Australia. *Departmental Seminar*
Phage Bites Symposium, Australia. *Invited Speaker*
Lorne Infection & Immunity Conference, Lorne, Australia. *Invited Speaker*
- 2021** 16th FAOBMB Congress, New Zealand. *Invited speaker*
Australian Institute of Medical & Clinical Scientists (AIMS) Scientific Meeting, Australia. *Invited speaker*
Cambridge University, Virology Seminar, UK. *Departmental seminar*
Ohio University, Infectious Diseases Seminar, USA. *Departmental seminar*
Gut Microbiome and Cardiovascular Disease Symposium, Australia. *Keynote speaker*
2nd International Conference on Bacteriophage Research, India. *Keynote speaker*
Biomedicine Discovery Institute, Monash University, Australia. *Departmental seminar*
TUM School of Medicine, Munich, Germany. *Departmental seminar*
University of Melbourne, Melbourne, Australia. *Departmental seminar*
The University of Queensland, Brisbane, Australia. *Departmental seminar*
- 2020** MicroSeq Conference, Melbourne, Australia. *Keynote speaker*
Royal Melbourne Hospital, Infectious Disease Grand Round, Melbourne, Australia. *Departmental seminar*
Monash Health, Infectious Diseases Grand Round, Melbourne, Australia. *Departmental seminar*
The University of Queensland, School of Biological Sciences, Brisbane, Australia. *Departmental seminar*
- 2019** American Society for Microbiology, San Francisco, USA. *Invited speaker*
Wollongong University, Molecular Horizons Seminar Series, Wollongong, Australia. *Departmental seminar*
Compass Teaching & Learning Conference, Darwin, Australia. *Keynote speaker*
Microbes and their Viruses Conference, Tbilisi, Georgia. *Plenary speaker*
Griffith University, Glycomics Seminar Series, Gold Coast, Australia. *Departmental seminar*
Westmead Institute for Medical Research, Sydney, Australia. *Departmental seminar*
Australian Virology Society Meeting, Queenstown, New Zealand. *Invited speaker*
International Conference on Bacteriophage Therapy, Vellore Institute of Technology, India. *Invited speaker*
- 2018** Molecular Microbiology Meeting, Sydney, Australia. *Invited speaker and conference co-organiser*
Nanomedicine Conference, Sydney Australia. *Invited speaker*
Australian Society for Microbiology Meeting, Brisbane, Australia. *Invited speaker*
Australian Society of Rheology, Monash University, Australia. *Invited speaker*
Macquarie University, Molecular Sciences, Sydney, Australia. *Departmental seminar*
La Trobe University, Microbiology, Melbourne, Australia. *Departmental seminar*
Australian Society for Microbiology, NSW-ACT Branch AGM. *Invited speaker*
- 2017** Pharmabiotics Conference, Paris, France. *Invited speaker*

Australian Society for Microbiology, Hobart, Australia. *Invited speaker*
 AusME Conference, Melbourne, Australia. *Invited speaker*
 22nd Evergreen Bacteriophage Meeting, Washington, USA. *Invited speaker*
 Bacteriophage EuroSciCon, Online conference. *Invited speaker*
 Advances in Microfluidics & Nanofluidics, Hobart, Australia. *Invited speaker*
 Pasteur Institut, Microbiology Department, Paris, France. *Departmental seminar*
 Monash Health, Infectious Diseases Grand Round, Melbourne, Australia. *Departmental seminar*
 Monash University, Biomedicine Discovery Institute, Melbourne, Australia. *Departmental seminar*
 University of Melbourne, Mathematics Department, Melbourne, Australia. *Departmental seminar*
 University of Melbourne, Microbiology Department, Melbourne, Australia. *Departmental seminar*

- 2016** Utrecht University, Biology Department, Utrecht, Netherlands. *Departmental seminar*
- 2015** Keystones Symposia, Keystones, USA. *Abstract submission & speaker*
 Society for Mathematical Biology Conference, Atlanta, USA. *Invited speaker*
 19th Evolutionary Biology Meeting, Marseilles, France. *Invited speaker*
- 2014** Microbiome and Microbiota Conference, San Diego, USA. *Invited speaker*
 3rd Viruses of Microbes Meeting, Zurich, Switzerland. *Abstract submission & speaker*
 Occidental College, Biology Department, Los Angeles, USA. *Departmental seminar*
 University California, Davis, Biology Department, Davis, USA. *Departmental seminar*
- 2013** 20th Evergreen Phage Conference, Evergreen State College, USA. *Abstract submission & speaker*
 Australian Society for Microbiology, Adelaide, Australia. *Abstract submission & speaker*
 San Diego Microbiology Group, San Diego, USA. *Invited speaker*
 Keystone Symposia on The Microbiome, Santa Fe, USA. *Poster presentation*
 Immunology Conference, Hawaii, USA. *Poster presentation*
- 2012** 14th ISME Conference, Copenhagen, Denmark. *Abstract submission, speaker & poster*
 Cystic Fibrosis Workshop, Rigs Hospital Clinical Microbiology, Copenhagen, Denmark. *Invited speaker*
- 2011** IWA Biofilm Conference, Shanghai, China. *Invited speaker*
- 2010** 13th ISME Conference, Seattle, USA. *Awardee & poster*
 AusBiotech, Melbourne, Australia. *Awardee & invited speaker*
- 2009** ASPD5 Conference, Aalborg, Denmark. *Awardee, abstract submission & speaker*
 Australian Society for Microbiology, Perth, Australia. *Awardee, abstract submission & speaker*
- 2008** 12th ISME Conference, Cairns, Australia. *Poster*

ADMINISTRATION & SERVICE

PLOS Biology, Editorial Board, Academic Editor. 2022-present
 Phage Bites, Convenor. 2022-present
 Deputy Research Director, School of Biological Sciences, Monash University. 2020-present
 Media & Communications Committee, School of Biological Sciences, Monash University. 2020-present
 Community Empowerment Group, Centre to Impact AMR, Monash University. 2020-present
 PhD Chair for student milestones, School of Biological Sciences, Monash University. 2020-present
 PHAGE: Therapy, Applications and Research. Associated Editor. 2019–present
 Frontiers in Microbiology, Antimicrobials, Resistance and Chemotherapeutics. Review Editor. 2019–present
 Research Committee Member, School of Biological Sciences, Monash University. 2018–present
 Genetics, Genomics & Health (GG&H) Deputy Theme Lead, School of Biological Sciences, Monash University. 2018–present
 Bacteriophage SIG convenor. 2017–present

ASM Member. 2016–present
 SDSU Senate Committee Member. 2013-2014
 San Diego Greater Science Fare Judge. 2012-2016
 Advanced Water Management Centre (AWMC), UQ. Student Representative. 2008-2010
 Secretary for Society of Undergraduate Science Students, UQ. 2003-2006

SIGNIFICANT OUTPUTS

(i) Refereed journal articles

Publications = 51, citations = 5039, and h-index = 24 (data collected from Google Scholar on 13th March, 2023)

1. Bichet, M., Adderley, J., Avellaneda, L., Gearing, LJ., Deffrasnes, C., David, C., Pepin, G., Gantier, MP., Lin, RCY., Patwa, R., Moseley, GW., Doerig, C. & **Barr, J.J.** (2023) Mammalian cells internalize bacteriophages and utilize them as a food source to enhance cellular growth and survival. **bioRxiv**.
2. Lee, LYY., Landry, SA., Jamriska, M., Subedi, D., Jooste, SA., **Barr, J.J.**, Brown, R., Kevin, K., Schofield, R., Monty, J., Subbarao, K. & McGain F. (2023) Efficacy of a patient isolation hood in reducing exposure to airborne infectious virus in a simulated healthcare setting. **Journal of Hospital Infection**.
3. Ang, B., Habibi, R., Kett, C., Chin, WH., **Barr, J.J.**, Tuck, KL., Neild, A. & Cadarso, VJ. (2023) Bacterial concentration and detection using an ultrasonic nanosieve within a microfluidic device. **Sensors and Actuators**.
4. Chin, WH., Kett, C., Cooper, O., Museler, D., Zhang, Y., Bamert, RS., Patwa, R., Woods, LC., Devendran, C., Korneev, D., Tiralongo, J., Lithgow, T., McDonald, MJ., Neild, A. & **Barr, J.J.** (2022) Bacteriophages evolve enhanced persistence to a mucosal surface. **Proceedings of the National Academy of Sciences**.
5. Wang, Y., Subedi, D., Li, J., Wu, J., Ren, Xue, F., Dai, J., **Barr, J.J.** & Tang, F. (2022) Phage cocktail targeting STEC O157:H7 has comparable efficacy and superior recovery compared with Enrofloxacin in an enteric murine model. **Microbiology Spectrum**.
6. Gordillo Altamirano, FL., Kostoulis, X., Subedi, D., Korneev, D., Peley, AY. & **Barr, J.J.** (2022) Phage-antibiotic combination is a superior treatment against *Acinetobacter baumannii* in a preclinical study. **EBioMedicine**.
7. Landry, SA., Subedi, D., MacDonald, MI., Dix, S., Kutey, DM., **Barr, J.J.**, Mansfield, D., Hamilton, GS., Edwards, BA. & Joosten, SA. (2022) Point of emission air filtration enhances protection of healthcare workers against skin contamination with virus aerosol. **Respirology**.
8. Landry, SA., Subedi, D., **Barr, J.J.**, MacDonald, MI., Dix, S., Kutey, DM., Mansfield, D., Hamilton, GS., Edwards, BA. & Joosten, SA. (2022) Fit-tested N95 masks combined with portable HEPA filtration can protect against high aerosolized viral loads over prolonged periods at close range. **The Journal of Infectious Diseases**.
9. Bhusal, RP., **Barr, J.J.** & Subedi, D. (2022) A metabolic perspective into antimicrobial tolerance and resistance. **The Lancet Microbe**.
10. Lee, CZ., Zoqratt, MZHM., Phipps, ME., **Barr, J.J.**, Lal, SK., Ayub, Q. & Rahman, S. (2022) The gut virome in two indigenous populations from Malaysia. **Scientific Reports**.
11. Nang, SC., Lu, J., Yu, H., Wickremasinghe, H., Azad, MAK., Han, M., Zhao, J., Rao, G., Bergen, PJ., Velkov, T., Sherry, N., McCarthy, DT., Aslam, S., Schooley, RT., Howden, BP., **Barr, J.J.**, Zhu, Y., Li, J. (2022) Diversified repertoire of phage defenses in *Klebsiella pneumoniae*: Bi-directional steering effects impacting antibiotic susceptibility. **bioRxiv**.
12. Mei-Ling, H., Nang, SC., Lin, YW., Zhu, Y., Yu, HH., Wickermasinghe, H., Barlow, CK., Creek DJ., Crawford, S., Rao, G., Dai, C., **Barr, J.J.**, Chan, K., Schooley, RT., Velkov, T. & Li J. (2022) Comparative metabolomics revealed key pathways associated with the synergistic killing of multidrug-resistant *Klebsiella pneumoniae* by a bacteriophage-polymyxin combination. **Computational and Structural Biotechnology Journal**.
13. Bichet, MC., Patwa, R. & **Barr, J.J.** (2021) Protocols for studying bacteriophage interactions with *in vitro* epithelial cell layers. **STAR Protocols**.
14. Gordillo, Altamirano, F. & **Barr, J.J.** (2021) Screening for lysogen-activity in therapeutically relevant bacteriophages. **Bio-protocols**.

15. Bichet, MC., Chin, WH., Richards, W., Lin, YW., Avellaneda-Franco, L., Hernandez, CA., Oddo, A., Chernyavskiy, O., Hilsenstein, V., Neild, A., Li, J., Voelcker, NH., Patwa, R. & **Barr, J.J.** (2021) Bacteriophage uptake by mammalian cell layers represents a potential sink that may impact phage therapy. **iScience**.
16. Hossain, L., Maliha, M., Barajas-Ledesma, R., Kim, J., Putera, K., Subedi, D., Tanner, J., **Barr, J.J.**, Hall, B. & Garnier, G. (2021) Engineering laminated paper for SARS-CoV-2 medical gowns. **Polymer**.
17. Wahida, A., Tang, F. & **Barr, J.J.** (2021) Rethinking phage-bacteria-eukaryotic relationships and their influence on human health. **Cell Host & Microbe**.
18. Subedi, D. & **Barr, J.J.** (2021) Temporal stability and genetic diversity of 48-year-old T-series phages. **mSystems**.
19. Sant, DG., Woods, LC., **Barr, J.J.** & McDonald, MJ (2021) Host diversity slows virus adaptation by selecting generalists over specialists. **Nature Ecology & Evolution**.
20. Gordillo Altamirano, F., Forsyth, JH., Patwa, R., Kostoulis, X., Trim, M., Subedi, D., Archer, S., Morris, FC., Oliveira, C., Kieley, L., Korneev, D., O'Bryan, MK., Lithgow, TJ., Peleg, AY., **Barr, J.J.** (2021) Bacteriophage-resistant *Acinetobacter baumannii* are resensitized to antimicrobials. **Nature Microbiology**.
21. Thung, TY., White, ME., Dai, W., Wilksch, JJ., Bamert, RS., Rocker, A., Williams DE., Huang, C., Schittenhelm, R., **Barr, J.J.**, Jameson, E., McGowan, S., Zhang, Y., Wang, J., Dunstan, RA. & Lithgow, T. (2021) The component parts of bacteriophage virions accurately defined by a machine-learning approach built on evolutionary features. **mSystems**.
22. Landry, SA., **Barr, J.J.**, MacDonald, M., Subedi, D., Mansfield, D., Hamilton, G., Edwards, B. & Joosten, S. (2021) Viable virus aerosol propagation by positive airway pressure (PAP) circuit leak and mitigation with a ventilated patient hood. **European Respiratory Journal**.
23. Dahlman, S., Avellaneda-Franco, L. & **Barr, J.J.** (2020) Phages to shape the gut microbiota. **Current Opinion in Biotechnology**.
24. Gordillo Altamirano, F. & **Barr, J.J.** (2020) Unlocking the next generation of phage therapy: the key is in the receptors. **Current Opinion in Biotechnology**.
25. Yu-We, L., Chang, RYK., Rao, GG., Jermain, B., Han, ML., Zhao, J., Chen, K., Wang, J., **Barr, J.J.**, Schooley, RT., Kutter, E., Chan, HK., Li, J. (2020) Pharmacokinetics/Pharmacodynamics of antipseudomonal bacteriophage therapy in rats: a proof-of-concept study. **Clinical Microbiology & Infection**. [IF = 3, Altmetric = 6.4]
26. Joiner, KL., Baljon, A., **Barr, J.J.**, Nulton, J., Rohwer, F. & Luque, T. (2019) Impact of bacterial motility in the encounter rate with bacteriophage in mucus. **Scientific Reports**, 9, Article number 16427. [IF = 4.1, Altmetric = 15]
27. Ghose, C., Ly, M., Schwanemann, LK., Shin, JH., Atab, K., **Barr, J.J.**, Little, M., Schooley, RS., Chopyk, J. & Pride, DR. (2019) The virome of cerebrospinal fluid: viruses where we once thought there were none. **Frontiers in Microbiology**, doi: 10.3389/fmicb.2019.02061. [IF = 4.07, Altmetric = 33]
28. Edwards, RA., Vega, AA., Norman, HM., Ohaeria, M., Levia, K., Dinsdale, EA., Cinek, O., Aziz, RK., McNair, K., **Barr, J.J.**, Bibby, K., Brouns, SJJ., Cazares, A., de Jonge, PA., Desnues, C., Munoz, SLD., Fineran, PC., Kurilshikov, A., Lavigne, R., Mazankova, K., McCarthy, DT., Nobrega, FL., Munoz, AR., Tapia, G., Trefault, AV., Vinuesa, P., Wagemans, J., Zhernakova, A., Aarestrup, FM., Ahmadov, G., Alassaf, A., Anton, J., Asangba, A., Billings, EK., Cantu, VA., Carlton, JM., Cazares, D., Cho, GS., Condeff, T., Cortes, P., Cranfield, M., Cuevas, DA., Iglesia, DE., Decewicz, P., Doane, MP., Dominy, NJ., Dziewit, L., Elwasila, BM., Eren, AM., Franz, C., Fu, J., Garcia-Aljaro, C., Ghedin, E., Gulino, KM., Haggerty, JM., Head, SR., Hendriksen, RS., Hill, C., Hyoty, H., Ilina, EN., Irwin, MT., Jeffries, TC., Jofre, J., Junge, RE., Kelley, ST., Mirzaei, MK., Kowalewski, M., Kumaresan, D., Leigh, SR., Lipson, D., Lisitsyna, ES., Llagostera, M., Maritz, JM., Marr, LC., McCann, A., Molshanski-Mor, S., Monteria, S., Moreira-Grez, B., Morris, M., Mugisha, L., Muniesa, M., Neve, H., Nguyen, N., Nigro, OD., Nilsson, AS., O'Connell, T., Odeh, R., Ramirez-Rojas, A., Raya, R., Reasor, K., Rice, GAO., Rossi, A., Santos, R., Shimashita, J., Stachler, EN., Stene, LC., Strain, R., Stumpf, R., Torres, PJ., Twaddle, A., Ibekwa, MAU., Villagra, N., Wandro, S., White, B., Whiteley, A., Whiteson, KL., Wijmenga, C., Zambrano, MM., Zsach, H., Dutilh, BE. **Nature Microbiology**, doi: 10.1038/s41564-019-0494-6. [IF = 14.3, Altmetric = 345]
29. **Barr, J.J.** (2019) Missing a Phage: Unraveling Tripartite Symbioses within the Human Gut. **mSystems**, 4 (3): e00105-19. [IF = 5.75, Altmetric = 25]

30. **Barr, J.J.** (2019) Precision Engineers: Bacteriophages modulate the gut microbiome and metabolome. **Cell Host & Microbe**, 25 (6): 771-3. [IF = 17.82, Altmetric = 15]
31. Altamirano, FLG. & **Barr, J.J.** (2019) Phage therapy in the postantibiotic era. **Clinical Microbiology Reviews**, 32 (2). [IF = 17.4, Altmetric = 91]
32. Chin, WH. & **Barr, J.J.** (2019) Phage research in 'organ-on-chip' devices. **Microbiology Australia**, 40 (1).
33. Van Belleghem, JD., Dabrowska, K., Vanechoutte, M., **Barr, J.J.** & Bollyky PL. (2019) Interactions between bacteriophage, bacteria and the mammalian immune system. **Viruses**, 11 (1), 10. [IF = 3.7, Altmetric = 31]
34. Nguyen, S., Baker, K., Padman, BS., Patwa, R., Dunstan, RA., Weston, TA., Schlosser, K., Bailey, B., Lithgow, T., Lazarou, M., Luque, A., Rohwer, F., Blumberg, RS. & **Barr, J.J.** (2017) Bacteriophage transcytosis provides a mechanism to cross epithelial cell layers. **mBio**, 8 (6): e01874-17. [IF = 6.9, Altmetric = 114]
35. **Barr, J.J.** (2017) A bacteriophages journey through the human body. **Immunological Reviews**, 279(1): 106-122. [IF = 9.6, Altmetric = 47]
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(ii) Patents

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2. Barr, J.J. & Rohwer, F. (2015) Antibacterial and protective bacteriophage formulations and methods for making and using them. **U.S. Patent Pending – Rohwer-F12**. USSN: 62/232,070 filed on September 24th, 2015.
3. Barr, J.J., German, J.G. & Rohwer, F. (2015) Antibacterial and protective formulations and methods for making and using them. **International Application (PCT)**; USSN: 15/528,354; priority date 2014-11-19.

(iii) Compositions

1. Bonilla, N. & Barr, J.J. (2018) Phage on Tap – A quick and efficient protocol for the preparation of bacteriophage laboratory stocks. **The Human Virome: Methods and Protocols**. (book chapter; Springer) eds., Moya, A. & Brocal, P.
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