Dr. Guy Cameron

POST-DOCTORAL RESEARCHER
THE UNIVERSITY OF NEWCASTLE & HUNTER MEDICAL RESEARCH INSTITUTE
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Objective

Dr. Guy Cameron, a proud Wailwan man, is an early career researcher specialising in immunology and microbiology. His research journey began with a focus on immune pathways involved in respiratory diseases like asthma and COPD. His work in this area has led to several high-impact publications, establishing him as a promising researcher in the field. In 2021, Dr. Cameron was awarded his PhD, where he explored immune responses in sterile acute kidney injury and in urinary tract infections, further deepening his expertise in the intersection of immunology and microbiology.

Guy now works as a post-doctoral researcher with the Aboriginal ear health team at the Hunter Medical Research Institute. His research, funded by NSW Health, investigates the bacteria associated with middle ear infections (otitis media) in Aboriginal populations, a significant health concern for young people in particular. In addition to his research, Dr. Cameron is actively involved in mentoring the next generation of medical researchers, supervising MD-research projects. He also holds an Indigenous Imaging Fellowship, co-funded by the National Imaging Facility and the University of Newcastle, highlighting his diverse research interests and commitment to Indigenous health.

Beyond his laboratory work, Guy is dedicated to improving Indigenous health outcomes through active involvement in community health initiatives. He serves on the *Wukul Yabang* Aboriginal Health Research Community Panel and co-chairs the University of Newcastle's Indigenous student engagement committee. Additionally, he's part of the executive committee as a category B member for the University of Newcastle's Animal Care and Ethics Committee, where he continually advocates for responsible basic research practices. Guy's work is poised to make a lasting impact on policy development and healthcare practices, reflecting his unwavering commitment to advancing Indigenous health.

Skills & abilities

General / Leadership
- Problem solving
- Communication
- Student supervision
- Staff management
- Data interpretation

Laboratory / science
- ELISA
- DNA/RNA extraction
- RT and qPCR
- Histology
- Flow cytometry

Clinical
- Performing basic and advanced life support
- Conducting a range of clinical examinations
- Interpreting imaging & laboratory investigations

Relevant Experience

Research assistant **Sep 2021 - Dec 2023**
- Supervised by Prof. Kelvin Kong OAM (*Worimi*), ENT surgeon
- Establishing laboratory methods for investigating bacteria causing ear disease

Casual lecturer **Jan 2022 - Current**
- Delivering biomedical science lectures, genomics and human infection & immunity
- Providing Indigenous lens to topics which may have sensitivities (genomics)

Indigenous Imaging Fellow **Jan 2022 - Current**
- Building relationships between neuroscience researchers and our community
- Leading projects incorporating cultural multimedia into medical imaging devices

Microbiomic ECR Fellow **Jan 2024 - Current**

- Clinical research focused on ear disease in Aboriginal children
- Genomic surveillance of invasive Group A Strep bacterial strains

Relevant Education

Bachelor of Biomedical Science (Honours) **Jan 2014 - Dec 2017**
The University of Newcastle | Awarded 1st class

Doctor of Philosophy (Immunology & Microbiology) **Feb 2018 - Aug 2021**
The University of Newcastle | PhD awarded 4th August

Joint Medical Program (Bachelor of Medical Science / Doctor of Medicine) **Jan 2021 - Dec 2025**
The University of Newcastle | Awarded B.MedSci 2023, MD in progress

Lead research grants (CIA)

$5,600 Immune Health Program | The Hunter Medical Research Institute **2022**
Research support funding for statistical analysis of audit data for ear disease in the Hunter region

$10,000 College of Health, Medicine and Wellbeing | The University of Newcastle **2022**
Pilot funding to establish laboratory methods to analyse bacteria causing ear disease

$500,000 NSW Health | Office for Health and Medical Research **2023**
Competitive funding to develop a platform for genomic surveillance of bacterial strains causing ear disease and upper respiratory illnesses in Hunter New England children and young people

$20,000 Philanthropy | The Hunter Medical Research Institute **2024**
Philanthropic funding to expand analysis of respiratory swabs from HNELHD children for bacteria causing invasive group A strep disease

$30,000 The Hunter Children's Research Foundation **2024**
Pilot funding to establish 3D organoids to develop a model of human middle ear epithelium, providing a platform to transform children's ear disease research

25,000 Philanthropy | The Hunter Medical Research Institute **2025**
Philanthropic funding to expand surveillance of bacteria causing invasive group A strep disease in children from the HNELHD region

*Total funding = **$3,342,853***
https://www.newcastle.edu.au/profile/guy-cameron#grants

Prizes and awards

Summer research scholarship **2015**
School of Biomedical Sciences and Pharmacy | The University of Newcastle

Summer research scholarship **2016**
School of Biomedical Sciences and Pharmacy | The University of Newcastle

Honours research scholarship **2017**
Priority Research Centre GrowUpWell | The University of Newcastle

Beautiful science contest winner **2017**
School of Biomedical Sciences and Pharmacy | The University of Newcastle

Post Graduate Award PhD Scholarship (Research Training Scheme) **2018**
Department of Education, Skills, and Employment | Australian Government

First prize for the International Immunology Day image contest **2019**
Society for Leukocyte Biology | images featured on the front page of the society's official newsletter

Indigenous STEM professional achievement award **2021**
CSIRO and BHP Foundation

Best oral presentation award for ECR impact and engagement **2024**
Immune Health Program | The Hunter Medical Research Institute

Greater than the sum of our parts award **2024**
The Hunter Medical Research Institute

Conference abstracts

3rd International Conference on Innate Lymphoid Cells **2018**
Poster presentation (1st author)

47th Annual Scientific Meeting of the Australasian Society for Immunology **2018**
Poster presentation (1st author)

25th edition of the International Society of Nephrology's World Congress of Nephrology **2019**
Poster presentation (1st author)

6th Newcastle Satellite Scientific Meeting of the Australian Society for Medical Research **2019**
Oral presentation (1st author) and poster presentation (2nd author)

22nd International Symposium on Recent Advances in OM, International Society of OM **2023**
Poster presentation (1st author)

7th national Otitis Media Australia (OMOZ) conference **2024**
3x Oral presentations (all senior author)

36th Annual Scientific Meeting of the Spine Society of Australia **2024**
Oral presentation (2nd author)

Publications

Publication summary: Total 9 publications (2 as 1st author, 1 as senior author) in high quality, peer-reviewed international journals (307 citations, h-index 7). All metrics including citations, impact factor, citation indicator and ranking are from Clarivate (Web of Science & Journal Citation Reports).

Original articles

1. Donovan C, Starkey MR, Kim RY, Rana BMJ, Barlow JL, Jones B, Haw TJ, Mono Nair P, Budden K, Cameron GJM, Horvat JC, Wark PA, Foster PS, McKenzie ANJ, Hansbro PM. Roles for T/B lymphocytes and ILC2s in experimental chronic obstructive pulmonary disease. *J Leukoc Biol*. 2019 Jan;105(1):143-150. doi: 10.1002/JLB.3AB0518-178R. Epub 2018 Sep 27. **Citations = 71. Ranked 105/205 in Cell Biology, 25/97 in Hematology, 86/181 in Immunology by Impact Factor (3.6). Ranked 91/205 in Cell Biology, 34/97 in Hematology, 78/181 in Immunology by Citation Indicator (0.73).**

2. Cameron GJM, Cautivo KM, Loering S, Jiang SH, Deshpande AV, Foster PS, McKenzie ANJ, Molofsky AB, Hansbro PM, Starkey MR. Group 2 Innate Lymphoid Cells Are Redundant in Experimental Renal Ischemia-Reperfusion Injury. *Front Immunol*. 2019 Apr 16;10:826. doi: 10.3389/fimmu.2019.00826. **Citations = 41. Ranked 38/181 in Immunology by Impact Factor (5.7). Ranked 43/181 in Immunology by Citation Indicator (0.95).** *Second 1st author publication of my PhD demonstrating that although immune cells can be artificially activated to prevent kidney recovery following injury, specific depletion or deficiency does not impair tissue recovery. Images from this publication were featured on the front page of the society's official newsletter and were awarded first prize for the Society for Leukocyte Biology image contest to celebrate International Immunology day.*

3. Starkey MR, Plank MW, Casolari P, Papi A, Pavlidis S, Guo Y, Cameron GJM, Haw TJ, Tam A, Obiedat M, Donovan C, Hansbro NG, Nguyen DH, Nair PM, Kim RY, Horvat JC, Kaiko GE, Durum SK, Wark PA, Sin DD, Caramori G, Adcock IM, Foster PS, Hansbro PM. IL-22 and its receptors are increased in human and experimental COPD and contribute to pathogenesis. *Eur Respir J*. 2019 Jul 18;54(1):1800174. doi: 10.1183/13993003.00174-2018. **Citations = 82. Ranked 4/100 in Respiratory System by Impact Factor (16.6). Ranked 4/101 in Respiratory System by Citation Indicator (3.72).**

4. Loering S, Cameron GJM, Bhatt NP, Belz GT, Foster PS, Hansbro PM, Starkey MR. Differences in pulmonary group 2 innate lymphoid cells are dependent on mouse age, sex and strain. *Immunol Cell Biol*. 2021 May;99(5):542-551. doi: 10.1111/imcb.12430. Epub 2021 Jan 13. **Citations = 15. Ranked 123/205 in Cell Biology, 99/181 in Immunology by Impact Factor (3.2). Ranked 150/205 in Cell Biology, 130/181 in Immunology by Citation Indicator (0.48).**

5. Tu X, Kim RY, Brown AC, de Jong E, Jones-Freeman B, Ali MK, Gomez HM, Budden KF, Starkey MR, Cameron GJM, Loering S, Nguyen DH, Nair PM, Haw TJ, Alemao CA, Faiz A, Tay HL, Wark PAB, Knight DA, Foster PS, Bosco A, Horvat JC, Hansbro PM, Donovan C. Airway and parenchymal transcriptomics in a novel model of asthma and COPD overlap. *J Allergy Clin Immunol*. 2022 May; S0091-6749(22)00706-0. doi: 10.1016/j.jaci.2022.04.032. **Citations = 17. Ranked 2/39 in Allergy, 11/181 in Immunology by Impact Factor (11.4). Ranked 1/39 in Allergy, 8/181 in Immunology by Citation Indicator (2.64).**

6. *Wukul Yabang*, Manning EE, Mate KE, Endacott SK, Cameron GJM. Indigenous student engagement in science: a case study addressing the lack of diversity and equity in biomedical science and pharmacy research for Aboriginal and Torres Strait Islander people. *Immunol Cell Biol*. 2025 Mar;103(3):256-264. doi: 10.1111/imcb.70007. **Citations = 2. Ranked 123/205 in Cell Biology and 99/181 in Immunology by Impact Factor (3.2). Ranked 150/205 in Cell Biology and 129/181 in Immunology by Citation Indicator (0.48).** *First senior author publication sharing the outcomes of the Indigenous Student Engagement Committee, which I established and co-chair at the University of Newcastle (School of Biomedical Sciences and Pharmacy). The publication is led by our Wukul Yabang Aboriginal Health Community Panel, demonstrating true partnership with our community in research.*

7. Cameron GJM, JM Garrett, AS Azzi, WC Matthews, AR Singh, R Ferch. Comparable Long-Term Pain and Disability Outcomes Following Decompression Alone Versus Decompression with Fusion in Lumbar Spinal Stenosis patients with High-Signal Facet Joints. Eur Spine J. 2025. **Ranked 86/281 in Clinical Neurology and 41/136 in Orthopedics by Impact Factor (2.6). Ranked 86/281 in Clinical Neurology and 41/136 in Orthopedics by Citation Indicator (0.93).**

Reviews

8. Loering S, Cameron GJM, Starkey MR, Hansbro PM. Lung development and emerging roles for type 2 immunity. *J Pathol*. 2019 Apr;247(5):686-696. doi: 10.1002/path.5211. Epub 2019 Jan 16. **Citations = 53. Ranked 56/322 in Oncology, 8/88 in Pathology by Impact Factor (5.6). Ranked 33/322 in Oncology, 7/88 in Pathology by Citation Indicator (1.8).** *Invited review.*

9. Cameron GJM, Jiang SH, Loering S, Deshpande AV, Hansbro PM, Starkey MR. Emerging therapeutic potential of group 2 innate lymphoid cells in acute kidney injury. *J Pathol*. 2019 May;248(1):9-15. doi: 10.1002/path.5242. Epub 2019 Mar 5. **Citations = 22. Ranked 56/322 in Oncology, 8/88 in Pathology by Impact Factor (5.6). Ranked 33/322 in Oncology, 7/88 in Pathology by Citation Indicator (1.8).** *First 1st author publication of my PhD which identified the knowledge gap addressed by publication #2.*