

Health economist and infectious disease epidemiologist with over 8 years' experience in antimicrobial resistance (AMR) burden estimation, mathematical modelling, causal inference and spatiotemporal dynamics. I have partnered with NGOs (e.g., Wellcome Trust), global agencies (e.g., WHO, CDC, the Global Fund), government commissions (e.g., Argentina, Chile, Cameroon, Nigeria, UK), and pharmaceutical companies (e.g., Pfizer and Merck). I have secured over \$12 millions in grants and \$300,000 in awards directly supporting my research/training, resulting in over 80 research publications, including in *The Lancet*, *Nature*, and *BMJ* family journals, and WHO consolidated guidance books for bacterial infectious diseases. I have been classified among the top 2% of researchers globally, according to the 2024 Stanford–Elsevier indicators.

APPOINTMENTS AND QUALIFICATIONS

- **Associate Professor**, City St George's, University of London (2026–present) [\[Web\]](#)
 - **Honorary Research Fellow**, Institute for Global Health, University College London (2021–present) [\[Web\]](#)
 - **Visiting Professor**, Department of Infectious Diseases, Pontificia Universidad Catolica, Chile (2022–present)
 - Senior Research Associate, Nuffield Department of Primary Care Health Sciences, University of Oxford (2024–2026)
 - Postgraduate Research Associate, University of Exeter (2022–23)
 - Research Fellow, Department of Disease Control, London School of Hygiene and Tropical Medicine, UK (2023)
 - Research Analyst, Institute for Global Health, University College London, UK (2021–21)
 - Research Analyst, School of Public Health, Columbia University, USA (2018–19)
 - Macroeconomic analyst, JP Morgan Chase, Chile 2016–17
 - Macroeconomic analyst, Central Bank Chile, 2015.
- **PhD**, Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, 2024 [\[Thesis\]](#)
 - **MSc**, Health Economics and Decision Science, University College London (Merit), 2020
 - **MA**, Economic Analysis, Universidad Diego Portales, Chile (Hons), 2016 [\[Thesis\]](#)
 - **BSc**, Business Engineering and Economics, Universidad Diego Portales, Chile (Hons), 2014
 - **PGCert Applied Machine Learning**, Columbia University, US, 2014
 - **PGCert Modern Techniques for Modelling Infectious Disease Dynamics**, London School of Hygiene & Tropical Medicine, UK, 2023
 - **PGCert Specialisation in Infectious Diseases Modelling**, Imperial College London, 2021
 - **PGCert spatial Analysis**, London School of Hygiene & Tropical Medicine, 2019
 - **PGCert Strategic thinking in Management and Economics**, State University of New York, US, 2014

CONSULTANCY

- **Consultant**, GAIHN-AR, South America. Center for Disease Control and Prevention, USA (2026–present)
- **Consultant**, AMR burden among patients with bloodstream infections in Kyrgyzstan. World Health Organization, Switzerland (2026–present)
- **Advisor**, Health economics of intelligence-surveillance. Advisor, NEX-Intelligence, Infection Surveillance Platform, UK (2026–present) [\[web\]](#)
- **Consultant**, Ministry of Social Care and Policy Innovation and Evaluation Research Unit of the National Institute for Health Research and the London School of Hygiene and Tropical Medicine. Targeting vaccine campaigns using health records from NHS COVID-19 app (2024–2026)
- **Consultant**, Tuberculosis programme as part of the WHO consolidated guidelines on tuberculosis, 2022: Module 3, Diagnosis–Tests for tuberculosis infection, 2021 [\[web1\]](#), [\[web2\]](#)
- **Consultant**, Evidence to inform policy and mitigation in Nigeria due to COVID-19, 2021–21 [\[web\]](#)

PUBLICATION METRICS

- **82** peer-reviewed publications (35% as first/corresponding author). **Citations:** 10,020 | **H-index:** 22 (updated June 2026)
- Ranked **Top 2%** of Scientists globally (Stanford–Elsevier, 2024)

SELECTED PUBLICATIONS (Top 6 out of 82)

- **Allel K**, Day L, Hamilton A, Lin L, Furuya-Kanamori L, et al. Global antimicrobial-resistance drivers: an ecological country-level study at the human–animal interface. *Lancet Planetary Health*. 2023;7:e291–303. [\[web\]](#)
- **Allel, K.**, Stone, J., Undurraga, E. A., Day, L., Moore, C. E., Lin, L., Furuya-Kanamori L & Yakob, L. (2023). The impact of inpatient bloodstream infections caused by antibiotic-resistant bacteria in low-and middle-income countries: A systematic review and meta-analysis. *PLoS Medicine*, 20(6), e1004199. [\[web\]](#)
- Cook A, Cooper B, Thorn M, et al., **Allel K**, et al., Sharland M. Estimating optimal levels of WHO Access, Watch, Reserve (AWaRe) antibiotic use in 186 countries, territories, and areas. *Lancet Public Health*. 2026;11(8):e476–486. [\[web\]](#)
- Acuña MP, Ross P, Carcamo G, et al., **Allel K**. Trends and drivers of multidrug-resistant bacteria incidence in 59 Chilean intensive care units, 2015–2024: a Bayesian hierarchical analysis. *Lancet Regional Health Americas*. 2026;58:101467. [\[web\]](#)
- **Allel K**, Garcia P, Peters A, Munita J, Undurraga EA, Yakob L. Cost-effectiveness of screening, decolonisation and isolation strategies for carbapenem-resistant Enterobacterales and methicillin-resistant *Staphylococcus aureus* infections in hospitals. *Lancet Regional Health Americas* 2025;43:101019. [\[web\]](#)
- **Allel K**, Peters A, Haghparast-Bidgoli H, et al. Excess burden of antibiotic-resistant bloodstream infections: evidence from a multicentre retrospective cohort study in Chile, 2018–2022. *Lancet Regional Health Americas* 2024;40:100943. [\[web\]](#)

SELECTED FUNDING (total: £9.10 millions or \$12.05 millions, PI: primary investigator, Co-I: co-investigator)

Year(s)	Role: Project	Funder	Amount
2026–31	Co-I: Gut microbiome biomarkers and antibiotic-use impact on resistant infections [web]	Wellcome Leap	\$7,000,000
2027–30	Co-I: Antibiotic Access Project: Estimating Antibiotic Needs	Bill and Mellinda Gates	£1,400,000
2026–30	Co-I: CHANGES Hub — climate action and health evidence synthesis	Wellcome Trust	£1,500,000
2025–28	Co-I: WinTB — TB window prophylaxis in household contacts [web]	Fondecyt, Chile	£200,000
2021–23	Co-I: Cost-effectiveness of <i>C. difficile</i> vaccine deployment, UK	Pfizer Inc.	£350,000
2023–24	Co-I: Aedes aegypti/albopictus roles in dengue transmission	Merck Sharp & Dohme	£209,000
2023–24	Co-I: Modified short treatment for MDR/RR-TB, Eastern Europe & Central Asia	The Global Fund	£50,000
2025	Co-I: ICU microbiome and hospital-acquired infection prevention, Chile	Avanza UC, PUC Chile	£35,000
2022	Co-I: The Guarani-Mbyá study: socio-cultural epidemiology & immunodeficiency [web]	UCL	£10,000
2025	PI: Optimising antibiotic use in primary care in South America	University of Oxford	£12,000
2025–26	Co-I: Integration of carbon metrics in healthcare	UCL	£12,000

2026-27	Co-I: Advancing bottom-up antimicrobial resistance & use in Latin America [web]	Royal Society Edinburgh	£10,000
2026-27	PI: Antibiotic prescribing and use in primary care, Chile	EPSRC/UCL	£7,000
2021	PI: Burden of antibiotic-resistant bloodstream infections in Chile [web]	RSTMH	£5,000
2019	Co-I: Proposal for control and prevention of antimicrobial resistance, Chile [web]	PUC, Chile	\$10,000
2025-26	Co-I: Ultra processed food and the chemistry within	IUPAC	\$11,750

SERVICE AND LEADERSHIP ROLES

- Academic Editor, Editorial Board, PLOS Medicine (2026–present)
- Main Editor, Special Issue “Economics of Antimicrobial Resistance,” *Value in Health Regional Issues* (2025–26)
- Member, WHO Europe AMR Accountability Index expert panel (2025)
- Senior Collaborator, Global Burden of Disease programme, Institute for Health Metrics and Evaluation (2025–present)
- Journal referee: *The Lancet*, *Nature Communications*, *Cell Press*, *Eurosurveillance*, *Lancet Public Health*, *Value in Health*, and others.

SCHOLARSHIPS AND AWARDS (total: £250.8 thousands or \$332.3 thousands)

Year(s)	Award	Awarding Body	Amount
2024	Grand Prize, AMR Surveillance Data Challenge [data re-use competition] [web]	Vivli–Wellcome Trust	£15,000
2023	‘Monica Suarez’ Prize — young scientist, antimicrobial resistance burden in Chile	SOCHINF, Chile	£1,200
2023	Bridging Salary Scheme	University of Exeter, UK	£5,000
2022–23	Doctoral project travelling award	LSHTM, UK	£3,100
2023	People’s Prize — scientific poster	LSHTM, UK	£100
2020–24	Full International PhD Scholarship	ANID, Chile	\$240,000
2019–20	Full International Master’s Scholarship	ANID, Chile	\$60,000

TEACHING, SUPERVISION and EXTERNAL EXAMINATION

Teaching

- Course lead, Introduction to Health Economics, MSc Modelling for Global Health, University of Oxford, UK, 2025
- Course tutor, Economic Evaluation, MSc Modelling for Global Health, University of Oxford, UK, 2024
- Invited lecture speaker on Epidemiology and Health-Economics. Pontificia Universidad Catolica, Chile, 2025
- Course tutor, Control of Infectious Diseases, London School of Hygiene and Tropical Medicine, UK, 2024
- Invited guest lecturer, Antimicrobial Resistance (AMR): a Multidisciplinary Approach Course. London School of Hygiene and Tropical Medicine, UK, 2023
- Invited lecture speaker on Infectious Disease Epidemiology. London School of Hygiene and Tropical Medicine, UK, 2023
- Course tutor, Modelling & Dynamics of Infectious Diseases, London School of Hygiene and Tropical Medicine, UK, 2023
- Invited lecture speaker on Key Principles of Health Economics, University College London, UK, 2022

Supervision of research assistants (RA), research fellows (RF), or visiting scholars (VS)

- Fatima Ahmed. RA in infectious diseases, London School of Hygiene and Tropical Medicine, 2023-24
- Maria Hernandez. VS undertaking training in tuberculosis transmission/economic modelling, University of Oxford, 2025

PhD student supervision

- Co-supervisor of Mayar Al-Mohajer, DPhil Primary Care, University of Oxford, UK. Topic: An Equity-Centered Stewardship Pathway for Older Adults: Determinants, Appropriateness, Outcomes, and Policy Effects in US Antibiotic Use, 2025-*to present*
- Co-supervisor of Ayisha Khalid, DPhil Population Health, University of Oxford, UK. Topic: Spatio-temporal contribution of candidate factors to the differential global distribution of HIV-1 diversity, 2024-*to present*
- Co-supervisor of Xin Xu, PhD Epidemiology and Health Statistics, Zhejiang University, China. Topic: Effectiveness of educational interventions within the community to improve antibiotic prescribing in China, 2024-*to present*
- Co-supervisor of Hassanat Lawal, PhD Medical Sciences, University of Exeter, UK. Topic: Probiotics for urogenital infection management: knowledge and understanding of patients and UK’s primary health providers, 2023-*to present*
- Co-supervisor of Franco Fernandez, PhD in Public Health, Universidad de Chile, Chile. Topic: Disease Burden of Chagas Disease in Chile, 2023-2026

Master, Bachelor and pre-doctoral supervision

- MSc Global Health Science and Epidemiology (Vincent Wong, University of Oxford), 2026
- MSc in Global Health Modelling (Kateryna Kuzminova, University of Oxford), 2025
- National Institute for Health Research pre-doctoral fellowship (Nicolas Armijo, University of Oxford), 2025
- MPH (Manzilina Mudia, London School of Hygiene and Tropical Medicine), 2022-23
- MSc (Priyanka Bhandari and Ellen Flanagan), London School of Economics, 2021-22
- MSc (Lucy Day), London School of Hygiene and Tropical Medicine, 2020-21
- Medical Sciences Bachelors (Charlotte Aldridge, University of Exeter), 2023-24
- Human Sciences Bachelors (Cindy Boa, University College London), 2023-24
- National Institute for Health Research ‘NIHR’ School for Primary Care Research program for undergraduate students (Jay Patel), 2023

External Examination

- External Assessor, Institute of Public Health of Chile (*Ministry of Science Competitive Grant Agreement*), 2025
- Examiner role. MSc Epidemiology, School of Population Health, University of Queensland, 2024
- Examiner role. MSc Control of Infectious Diseases, London School of Hygiene and Tropical Medicine, 2023

PRESENTATIONS

Invited seminar and workshop presentations

- *Invited speaker*, LATAM Antimicrobial Resistance Summit. Presentation titled ‘The Strategic Value of New Antimicrobials in Combating Resistance: Burdens, Macroeconomic Costs, and LATAM Impact’, 2026
- *Invited speaker*, April meeting EU JAMRAI ‘Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections’ titled ‘Global pricing of key AWaRe antibiotics’ (Norway), 2026

- Invited speaker, April meeting Centre for Disease Control and Prevention ‘CDC’ titled ‘Cost-effectiveness of the GAIHN-AR intervention: a quasi-experimental approach’ (Atlanta, US), 2026
- Invited speaker, seminar: The Burden of Antimicrobial Resistance and potential interventions in South America. Department of Economics, University of Bocconi, Italy, 2025
- Invited speaker, seminar: Environmental and geo-economic impact of conservative versus liberal oxygen strategies in mechanically ventilated critically ill patients. [Chilean Society of Internal Medicine](#) (SOCHIMI, Chile), 2025
- Invited speaker, seminar: The role of data sharing and re-use and demonstrate how data sharing can be effective using a case study in antimicrobial resistance. [National Health Institute](#) (NIH, US), 2025
- Invited speaker, seminar: Reusing pharmaceutical data to understand Antimicrobial Resistance. Antimicrobial Resistance Research Centre, [London School of Hygiene and Tropical Medicine](#), UK, 2025
- Invited speaker, Brown bag seminar series, Institute of Global Health, University College London, UK. Topic: The burden of antimicrobial resistance causing bloodstream infections: learning and outcomes, 2024
- Invited speaker, seminar: Global Impacts of Antimicrobial Resistance, What About the Chilean Context? [Chilean Society of Infectious Diseases](#), Chile, 2024
- Invited speaker, workshop: Developing a conceptual framework to improve understanding of Antimicrobial Resistance in livestock systems: translating research into policy and practice, Argentina. Invited by UKRI, Global AMR Innovation Fund ‘GAMRIF’, Argentina’s National Scientific and Technical Research Council ‘CONICET’ and Embassy of the UK in Argentina, 2024
- Invited speaker, Antimicrobial resistance annual university course (CURICURB), topic: ‘Successful examples of public policies in controlling antimicrobial resistance globally’, Curico, Chile, 2021

Conference presentations

- 5th edition of the International Network for Antimicrobial Resistance Social Science ([INAMRSS](#)), Munich, Germany 2026
- 36th annual meeting of the European Society of Microbiology and Infectious Diseases ([ESCMID](#)), Munich, Germany 2026
- 16th World congress of The International Health Economics Association ([iHEA](#)), Bali, Indonesia, 2025
- 35th annual meeting of the European Society of Microbiology and Infectious Diseases ([ESCMID](#)), Vienna, Austria, 2025
- International Society for Pharmacoeconomics and Outcomes Research, [ISPOR Europe](#), Barcelona, Spain, 2024
- 34th annual meeting of the European Society of Microbiology and Infectious Diseases ([ESCMID](#)), Barcelona, Spain; Top-ranked scientific poster (ribbon awards), bacterial diseases section, 2024
- Annual scientific meeting, Australasian Epidemiological Association ([AEA](#)), Melbourne, Australia, 2023
- 71st annual meeting of the American Society of Tropical Medicine and Hygiene ([ASTMH](#)), 2023
- 14th World congress of The International Health Economics Association ([iHEA](#)), 2021
- 19th International Conference of Infectious Diseases ([ICID](#)), Kuala Lumpur, Malaysia, 2020
- XIXth International Sociological Association ([ISA](#)) World Congress, Canada, and [Chilean Society of Economists](#), 2018

PUBLIC INVOLVEMENT AND PROFESSIONAL SOCIETIES

- Member, European Society of Clinical Microbiology and Infectious Diseases ([ESCMID](#)), 2024-to present
- Member, Chilean Society of Infectious Diseases ([SOCHINF](#)), 2026-to present
- JUNIPER (Joint Universities Pandemic and Epidemiological Research) -[Affiliate fellow](#), 2026-to present
- Collaborator, Center for Surveillance, Epidemiology, and Technologies for Emerging Infectious Threats, Chile [\[SENTINET\]](#), 2026-to present
- Selected for the Future Antimicrobial-resistance Network ([FAN](#)) Building Leaders Programme for early- and mid-career researchers, UKRI, 2026
- Member, Royal Society of Tropical Medicine and Hygiene ([RSTMH](#)), UK, 2021-24
- Antimicrobial Resistance Centre ([ARC](#)), London School of Hygiene and Tropical Medicine, UK, 2021-24
- Centre for Mathematical Modelling for Infectious Diseases ([CMMID](#)), London School of Hygiene and Tropical Medicine, UK, 2021-23
- Member of the Medical Research Foundation National PhD Training Programme in Antimicrobial Resistance Research, UK. Title ‘Collaborative processes in AMR research design’, 2021

SELECTED MEDIA RECOGNITION OF PUBLISHED RESEARCH

Written press

- Antibiotic consumption and resistance is a ‘two-way street’ between animals and humans. *Lancet Planetary Health*. [The Independent](#), [Evening Standard](#), [Daily mail](#), [Public News Time](#), [IRISH News](#), n-TV, [Yahoo](#), [News-Medical.net](#), [Centre for Infectious Disease Research and Policy \(CIDRAP\)](#)
- Pneumonia and urinary tract infections in Chile are becoming more resistant to antibiotics (in Spanish: *Neumonía e infecciones urinarias en Chile están siendo más resistentes a los antibióticos*). [El Mercurio](#). [Pontificia Universidad Católica](#), 2023
- Study reveals increase in mortality and public health costs due to antibiotic resistance (in Spanish: *Estudio revela aumento de mortalidad y costos para la salud pública por resistencia a los antibióticos*). National radio and newspaper ([Cooperativa](#)), 2023
- Data on Fire: How AI Is Transforming the Healthcare Industry. News ([Forbes](#)), 2025

Interviews and podcasts

- Superbugs Everywhere All at Once – The not-so-simple fight to control drug-resistant bacteria. [The One Health Trust \(OHT\)](#) and [Centre for Disease Dynamics Economics and Policy \(CDDEP\)](#), Washington DC, USA, 2023
- Antimicrobial Resistance Awareness, fireside interview – VIVLI Foundation, Loeb House, [University of Harvard](#), Boston, USA, 2025

Science communication

- Reflections on the ESCMID Global Conference on Clinical Microbiology and Infectious Diseases: [LSHTM](#), UK, 2025