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Profile

I am a Associate Research Scientist in molecular epidemiology and virus evolution at the Yale School of Public Health. I now primarily work on arboviruses, in particular building genomic surveillance systems for Dengue virus. Previously, I have worked extensively on the evolution and tracking of SARS-CoV-2. I am interested in combining genomic and non-genomic data for public health applications of complex phylodynamics.

Education

- 2017-2022 **PhD**, *BBSRC EASTBIO PhD programme*, University of Edinburgh
From epidemics to pandemics: elucidating the dynamics of Ebola Virus and SARS-CoV-2
Supervisors: Professor Andrew Rambaut and Professor Mark Woolhouse
- 2016-2017 **MSc**, *Control of Infectious Diseases*, London School of Hygiene and Tropical Medicine, Distinction, Highest mark in the year
Research project: *Evaluating the use of the Open Data Kit Platform for Investigating a Typhoid Fever Outbreak*, Uganda Virus Research Institute.
Supervisor: Dr Robert Downing
Taught modules include: Extended Epidemiology, Statistical Methods in Epidemiology, Pathogen Genomics, Disease modelling and dynamics, Public Health Policy and Designing Disease Control Programmes for Developing Countries.
- 2013-2016 **BA(Hons)**, *Biological Sciences*, University of Oxford, First Class Honours
Research project: *Does RORgt inhibition affect the autoimmune phenotype of MAIT cells?*
Supervisors: Professor Paul Klenerman and Dr Ayako Kurioka
Extended Essay: *Can social evolution theory help to solve the antibiotic crisis?* Supervisor: Dr Craig MacLean
Presentation: *Why was the 2014-15 Ebola epidemic so devastating?* Supervisor: Professor Sunetra Gupta

Employment

- 2024-present **Yale University, USA**, Associate Research Scientist, Grubaugh Lab
Phylogenetic pillar lead in the Grubaugh research group. I lead the arbovirus subgroup, supervise phylogenetic and evolutionary research, am part of the senior leadership of the lab, and continue to lead a dengue sequencing programme.

- 2022-2024 **Yale University, USA, Postdoctoral research associate, Grubaugh Lab**
Phylogenetic pillar lead in the Grubaugh research group. I supported and led phylogenetic and evolutionary work in the lab and supported the set-up of dengue genomic surveillance by leading sequencing programmes in the lab and setting up a dengue lineage nomenclature system.
- 2020 **University of Edinburgh and COG-UK, Edinburgh, UK, Postdoctoral scientist, Rambaut Lab**
Employed at a postdoctoral level by the UK COVID-19 genomics consortium COG-UK to support the public health response to COVID-19 in the UK.
- 2019 **World Health Organisation, Health Emergencies Team, Nigeria Country Office, Abuja, Nigeria, Intern**
Over three months, developed and delivered a training course in sequencing, bioinformatics and phylogenetics to Nigerian Centres for Disease Control scientists, wrote a policy guidance document on the use of genomics for response to outbreaks of notifiable diseases and supported normative activities of the team including participating in a Yellow Fever outbreak investigation in Ebonyi state.
- 2017-2020 **University of Edinburgh, Edinburgh, UK, Demonstrator & Tutor**
Taught a variety of coding, genomics and bioinformatics courses which are given to undergraduate and postgraduate students.
- 2015 **Madagascar SAVE, Antananarivo, Madagascar, Intern**
Over six weeks, helped to launch a grass-roots NGO, including working with the UNAIDS Community Mobilization and Networking Advisor to adapt a UNAIDS diversity and inclusion workshop for this NGO and to organise and adapt a Training of Trainers session.

Publications

Stars indicate co-first authorships

2024

34. **Verity Hill***, Sara Cleemput*, James Siqueira Pereira*, Robert Gifford, Vagner Fonseca [and 32 others], Wim Dumon, Alex Ranieri Jeronimo Lima, Tulio de Oliveira, and Nathan Grubaugh
A new lineage nomenclature system to aid genomic surveillance of dengue virus
PLOS Biology 22(9)
33. Nathan Grubaugh, Daniela Torres-Hernandez, Monica Murillo-Oritz, Diana Davalaos, Pio Lopez, Isabel Hurtado, Mallery Breban, Ellie Bourgikos, **Verity Hill**, Eduardo Lopez-Medina
2023-2024 dengue outbreak in Valle del Cauca, Colombia, caused by multiple virus serotypes and lineages
Emerging Infectious Diseases
32. Chantal Vogels*, **Verity Hill*** [and 28 others] and Nathan Grubaugh
DengueSeq: a pan-serotype whole genome amplicon sequencing protocol for dengue virus

BMC Genomics 25 (433)

31. Emma Taylor-Salmon*, **Verity Hill*** [and 41 others] and Nathan Grubaugh
Travel surveillance uncovers dengue virus dynamics and introductions in the Caribbean
Nature Communications 15 (3508)
30. Forrest K Jones, Andrea M Morrison, [and 21 others including **Verity Hill**] and Danielle R Stanek
Introduction and Spread of Dengue Virus 3, Florida, USA, May 2022-April 2023
Emerging Infectious Diseases 30(2)

2023

29. Franziska Brunner, Alexander Payne [and 21 others including **Verity Hill**] and Steve Paterson
Utility of wastewater genomic surveillance compared to clinical surveillance to track the spread of the SARS-CoV-2 Omicron variant across England
Water Research 247
28. Joseph Tsui*, John T McCrone*, Ben Lambert*, Sumali Bajaj*, Rhys Inward*, Paolo Bosetti*, Rosario Pena*, Houriiyah Tegally, **Verity Hill** [and 31 others] and Moritz Kraemer
Genomic Assessment of invasion dynamics of SARS-CoV-2 Omicron BA.1
Science 381(6655)
27. **Verity Hill***, Toby Koch*, Kiet Ngo, Sean M. Bialosuknia, Steven D. Zink, Cheri A. Koetzner, Joesph G. Maffei, Alan P. Dupuis, P Bryon Backenson, Joanne Oliver, Glen Gallagher, Matt Osborne, Sandra Smole, Laura D. Kramer, Guy Baele, Chantal B.F. Vogels, Phil M. Armstrong, Alexander T. Ciota, Nathan D. Grubaugh
Dynamics of Eastern equine encephalitis virus during the 2019 outbreak in the Northeast United States.
Current Biology 33(12)
26. Simon Dellicour, Samuel L. Hong, **Verity Hill**, Dacia Dimartino, Christian Marier, Paul Zappile, Gordon W. Harkins, Philippe Lemey, Guy Baele, Ralf Duerr, Adriana Heguy
Variant-specific introduction and dispersal dynamics of SARS-CoV-2 in New York City – from Alpha to Omicron.
PLOS Pathogens 19(4): e1011348. <https://doi.org/10.1371/journal.ppat.1011348>
25. **Verity Hill**, George Githinji, Chantal B.F. Vogels, Ana I. Bento, Chrispin Chaguza, Christine V. F. Carrington, Nathan D. Grubaugh
Towards a global virus genomic surveillance network.

Cell Host and Microbe Mar 6:S1931-3128(23)00107-5. doi: 10.1016/j.chom.2023.03.003. Epub ahead of print. PMID: 36921604; PMCID: PMC9986120.

24. Nikita S. D. Sahadeo, Soren Nicholls, Filipe R. R. Moreira, Áine O'Toole, Vernie Ramkissoon, Charles Whittaker, **Verity Hill**, John T. McCrone, [and 44 others] and Christine Carrington
Implementation of genomic surveillance of SARS-CoV-2 in the Caribbean: Lessons learned for sustainability in resource-limited settings
PLOS Global Public Health 3(2) <https://doi.org/10.1371/journal.pgph.0001455>
23. Chrispin Chaguza, Anne Hahn, Mary Petrone, Shuntai Zhou, David Ferguson, Mallory Breban, Kien Pham, Mario Pena-Hernandez, Christopher Castaldi, **Verity Hill**, Yale SARS-CoV-2 Genomic Surveillance Initiative, Wade Schulz, Ronald Swanstrom, Scott Roberts, Nathan Grubaugh
Accelerated SARS-CoV-2 intrahost evolution leading to distinct genotypes during chronic infection
Cell Reports Medicine 4(2) 10.1016/j.xcrm.2023.100943

2022

22. Áine O'Toole*, **Verity Hill***, Ben Jackson*, Rebecca Dewar*, Nikita Sahadeo* [and 16 others] and Andrew Rambaut
Genomics-informed outbreak investigations of SARS-CoV-2 using civet
PLOS Global Public Health 2(12) <https://doi.org/10.1371/journal.pgph.0000704>
21. John T. McCrone*, **Verity Hill***, Sumali Bajaj*, Rosario Evans Pena* [and 37 others] and Moritz Kramer
Context-specific emergence and growth of the SARS-CoV-2 Delta variant
Nature 610 154-160 doi:<https://doi.org/10.1038/s41586-022-05200-3>
20. **Verity Hill**, Louis Du Plessis, Thomas P Peacock [and 26 others] and Andrew Rambaut
The origins and molecular evolution of SARS-CoV-2 lineage B.1.17 in the UK
Virus Evolution 8(2) doi:<https://doi.org/10.1093/ve/veac080>
19. Raquel Viana, Sikhulile Moyo, Daniel G. Amoako, Houriiyah Tegally, Cathrine Scheepers [and 93 others including **Verity Hill**] and Tulio de Oliveira
Rapid epidemic expansion of the SARS-CoV-2 Omicron variant in southern Africa
Nature 603 679-686 doi:<https://doi.org/10.1038/s41586-022-04411-y>
18. Kathryn Campbell, Robert J. Gifford, Joshua Singer, **Verity Hill**, Aine O'Toole, Andrew Rambaut, Katie Hampson, Kirstyn Brunner

Making genomic surveillance deliver: A lineage classification and nomenclature system to inform rabies elimination

Plos Pathogens 18(5) doi:10.1371/journal.ppat.1010023

17. Dinesh Aggarwal, Ben Warne, Aminu Jahun, William Hamilton, Thomas Fieldman, Louis Plessis, **Verity Hill** [and 31 others] and Ian Goodfellow
Genomic epidemiology of SARS-CoV-2 in a UK university identifies dynamics of transmission
Nature Communications 13(751) <https://doi.org/10.1038/s41467-021-27942-w>

2021

16. Moritz UG Kraemer*, **Verity Hill***, Christopher Ruis*, Simon Dellicour*, Sumali Bajaj* [and 19 others] and Oliver Pybus
Spatiotemporal invasion dynamics of SARS-COV-2 lineage B.1.1.7 emergence
Science 373(6557) 889-895 doi: 10.1126/science.abj0113
15. **Verity Hill**, Christopher Ruis, Sumali Bajaj, Oliver Pybus, Moritz Kraemer
Progress and Challenges in Genomic Epidemiology
Trends in Parasitology doi:<https://doi.org/10.1016/j.pt.2021.08.007>
14. Samuel M Nicholls, Radoslaw Poplawski, Matthew J Bull, Anthony Underwood, Michael Chapman, Khalil Abu-Dahab, Ben Taylor, Rachel M Colquhoun, Will PM Rowe, Ben Jackson, **Verity Hill** [and 12 others] and Nicholas Loman
CLIMB-COVID: continuous integration supporting decentralised sequencing for SARS-CoV-2 genomic surveillance
Genome Biology, 22(196) doi:<https://doi.org/10.1186/s13059-021-02395-y>
13. Ben Jackson, Maciej F. Boni, Matthew J. Bull, Amy Colleran, Rachel M. Colquhoun, Alistair C. Darby, Sam Haldenby, **Verity Hill** [and 16 others] and Andrew Rambaut
Generation and transmission of interlineage recombinants in the SARS-CoV-2 pandemic
Cell doi:<https://doi.org/10.1016/j.cell.2021.08.014>
12. Áine O'Toole, Emily Scher, Anthony Underwood, Ben Jackson, **Verity Hill**, John T McCrone, Rachel Colquhoun, Chris Ruis, Khalil Abu-Dahab, Ben Taylor, Corin Yeats, Louis Du Plessis, Daniel Maloney, Nathan Medd, Stephen W Attwood, David M Aanensen, Edward C Holmes, Oliver G Pybus, Andrew Rambaut
Assignment of epidemiological lineages in an emerging pandemic using the pangolin tool
Virus Evolution 7(2) doi: <https://doi.org/10.1093/ve/veab064>
11. Áine O'Toole*, **Verity Hill*** [and 83 others] and Moritz Kraemer

Tracking the international spread of SARS-CoV-2 lineages B.1.1.7 and B.1.351/501Y-V2

Wellcome Open Research 2021;6:121. doi:10.12688/wellcomeopenres.16661.1

10. Yvan Butera*, Enatha Mukantwari*, Maria Artesi*, Jeanne D'Arc Umuringa*, Áine Niamh O'Toole, **Verity Hill** [and 28 others] and Nadine Rujeni
Genomic sequencing of SARS-CoV-2 in Rwanda reveals the importance of incoming travelers on lineage diversity
Nature Communications 5705(12) doi:<https://doi.org/10.1038/s41467-021-25985-7>
9. Louis du Plessis*, John T McCrone*, Alexander E Zarebski*, **Verity Hill***, Christopher Ruis* [and 20 others] and Oliver G Pybus
Establishment and lineage dynamics of the SARS-CoV-2 epidemic in the UK.
Science 371(6530). doi: 10.1126/science.abf2946
8. Erik Volz, **Verity Hill**, John T McCrone [and 26 others] and Thomas Connor
Evaluating the effects of SARS-CoV-2 Spike mutation D614G on transmissibility and pathogenicity
Cell 184(1), 0.1016/j.cell.2020.11.020.
7. Erik Volz, Swapnil Mishra, Meera Chand, [and 30 others including **Verity Hill**] and Neil Ferguson
Assessing transmissibility of SARS-CoV-2 lineage B.1.1.7 in England
Nature 593(7858)266-269 <https://doi.org/10.1038/s41586-021-03470-x>

2020 and earlier

6. Jing Lu*, Louis du Plessis*, Zhe Liu*, **Verity Hill*** [and 36 others] and Changwen Ke
Genomic epidemiology of SARS-CoV-2 in Guangdong province, China
Cell 181 (5) doi: 10.1016/j.cell.2020.04.023
5. Philippe Lemey, Samuel L Hong, **Verity Hill**, Guy Baele, Chiara Poletto, Vittoria Colizza, Áine O'Toole, John T McCrone, Kristian G Andersen, Michael Worobey, Martha I Nelson, Andrew Rambaut, Marc A Suchard
Accommodating individual travel history and unsampled diversity in Bayesian phylogeographic inference of SARS-CoV-2
Nature Communications 11 doi: 10.1038/s41467-020-18877-9
4. Michael Worobey, Jonathan Pekar, Brendan B Larsen, Martha I Nelson, **Verity Hill**, Jeffrey B Joy, Andrew Rambaut, Marc A Suchard, Joel O Wertheim, Philippe Lemey
The emergence of SARS-CoV-2 in Europe and North America

Science 370 (6516) doi: 10.1126/science.abc8169

3. Andrew Rambaut, Edward C Holmes, Áine O'Toole, **Verity Hill**, John T McCrone, Christopher Ruis, Louis du Plessis, Oliver G Pybus

A dynamic nomenclature proposal for SARS-CoV-2 lineages to assist genomic epidemiology

Nature Microbiology 5(11) doi: 10.1038/s41564-020-0770-5

2. Matthew Biggerstaff, Benjamin J Cowling, Zulma M Cucunubá, Linh Dinh, Neil M Ferguson, Huizhi Gao, **Verity Hill** [and 13 others] and Jessica Wong

Early Release-Early Insights from Statistical and Mathematical Modeling of Key Epidemiologic Parameters of COVID-19

Emerging Infectious Diseases 26(11) doi: 10.3201/eid2611.201074

1. **Verity Hill** and Guy Baele

Bayesian estimation of past population dynamics in BEAST 1.10 using the Skygrid coalescent model

Molecular biology and evolution 36 (11), 2620-2628 doi: 10.1093/molbev/msz172

Skills and Experience

Computational

Languages Python, R, bash, MATLAB, STATA

Practical L^AT_EX, Github, Illustrator, Geneious, Prism, ArcGIS, Python visualisation tools including Matplotlib and Geopandas, FigTree, Javascript visualisation tools Vega and Vega-lite

Software Extensive experience in using BEAST and associated packages, especially phylogeographic analyses; Experience developing flexible and user-friendly software in Python and Snakemake; Open Data Kit

Field

- 2019 **Yellow Fever outbreak investigation with the World Health Organisation and Nigerian Centres for Disease Control, Ebonyi state, Nigeria** We delivered supplies and community sensitisation, performed active and retrospective case finding and helped to organise the transportation of patient samples to laboratories with appropriate reagents. I also wrote the daily situation reports that were sent back to the country office in Abuja, including descriptive epidemiology and statistical analysis.

- 2017 **Field epidemiology study with the Uganda Virus Research Institute, Entebbe, Uganda** Designed, developed and delivered a pilot study to test an electronic data collection tool for Typhoid fever outbreaks, including formulating and piloting a Case Investigation Form for Typhoid Fever, dealing directly with and training clinical officers in study clinics and performing descriptive epidemiological analyses.

Lecturing

- 2024 **Guest lecture for One Health, Boston University, USA**, *Molecular epidemiology*
- 2023 **Guest seminar for Genomic Epidemiology, Yale University, USA**, *Phylogenetics and Phylogeography*
- 2022 **Genomic epidemiology workshop at CIDEIM, Cali, Colombia**, *Applications of Genomic epidemiology and Introduction to Phylogenetics*
- 2021 **Guest seminar for Quantitative Methods in Infectious Disease Research, Georgetown University, USA**, *Phylogenetic Approaches to Epidemic Control*
- 2021 **ARTIC/CLIMB workshop, online**, Delivered a lecture on genomic epidemiology, and developed an outbreak investigation exercise for participants
- 2020 **Guest lecture for Health Geography students at Georgetown University, online**, *Phylogenetic Approaches to Epidemic Control*
- 2019 **Nigerian Centres for Disease Control, Abuja, Nigeria**, Designed and delivered a lecture course of three 1.5 hour sessions, with assigned reading, quizzes and accompanying monitoring and evaluation, Lecture
- 2019 **Plant-ID Network, Edinburgh, UK**, *Bayesian Phylogenetics*, 1 week, Lectures and practical tutorials
- 2018 **West African Centre for Cell Biology of Infectious Pathogens, Accra, Ghana**, 1 week on real-time sequencing and analysis for acute viral outbreaks with ARTIC Network, Lectures and practical tutorials

Conferences and workshops

Invited Talks

- 2024 **Wakate Young Virology Network Journal Club**, *The Dynamics of Eastern Equine Encephalitis in the US*, Remote, Tokyo, Japan
- 2024 **PAHO-CDC genomic surveillance workshop meeting**, *Developing a dengue virus lineage system to improve genomic surveillance*, San Juan, Puerto Rico
- 2023 **ACAV committee subgroup meeting, ASTMH**, *Developing a dengue virus lineage system to improve genomic surveillance*, Chicago, USA
- 2022 **Massachusetts Consortium on Pathogen Readiness Seminar**, *The origins and molecular evolution of B.1.1.7 in the UK*, Remote, Boston, USA
- 2022 **Georgetown Department of Biology Seminar**, *The Dynamics of Eastern Equine Encephalitis in the US*, Washington DC, USA

- 2021 **Annual PQC conference: From COVID-19 Genomics to spread, vaccine and therapy**, *The origins, evolution and spread of B.1.1.7 in the UK*, Remote, Boston, USA
- 2021 **Genomics at Edinburgh launch event**, *Reconstructing the spatial epidemiology of SARS-CoV-2*, Remote, Edinburgh, UK
- 2021 **Research Institute for Tropical Medicine, Philippines**, *Genomic epidemiology of SARS-CoV-2*, Remote, Manila, The Philippines
- 2021 **Wellcome Trust Sanger Institute seminar series**, *Large scale genomic sequencing for investigating the dynamics of SARS-CoV-2 in the UK*, Remote, Cambridge, UK
- 2021 **Applied Bioinformatics and Public Health Microbiology**, *Investigating outbreaks of SARS-CoV-2 using civet*, Remote, Cambridge, UK
- 2021 **Edinburgh University Science Journals Society Conference**, *Genomics and communication in a pandemic*, Remote, Edinburgh, UK
- 2020 **Verena Consortium Lighthouse Talks**, *Exploring Ebola Virus Disease Dynamics using a Phylodynamically-informed Agent Based Model*, Remote, USA

Abstracts

- 2024 **Virus Genomics, Evolution and Bioinformatics**, *Wellcome Trust Sanger Institute*, Talk: The global and regional spread of dengue virus, Cambridge, UK
- 2023 **7th Pan-American Dengue Research Network Meeting**, *Pontifical Catholic University of Peru*, Talk: Developing a dengue virus lineage system to improve genomic surveillance, Lima, Peru
- 2023 **American Society for Tropical Medicine and Hygiene annual meeting**, Poster: Developing a dengue virus lineage system to improve genomic surveillance, Chicago, USA
- 2022 **29th International Dynamics & Evolution of Human Viruses**, Talk: The origins and molecular evolution of B.1.1.7 in the UK, San Diego, USA
- 2019 **Epidemics - 7th international conference on Infectious Disease dynamics**, *Elsevier*, Talk: Phylodynamic approaches for investigating Ebola Virus Disease dynamics in Sierra Leone, Charleston, USA
- 2018 **European Meeting of PhD Students in Evolutionary Biology**, *University of Granada*, Poster and Talk: Real-time sequencing and its applications to public health, Grenada, Spain
- 2018 **Virus and Genome Evolution conference**, *Wellcome Trust Sanger Institute*, Poster: Examining the drivers behind the West African Ebola Virus Disease epidemic, Cambridge, UK
- 2018 **Evolution and Ecology of Infectious Diseases conference**, *University of Glasgow*, Poster: Examining the drivers behind the West African Ebola Virus Disease epidemic, Glasgow, UK

Additional training

- 2023 **Fundamentals of equitable teaching**, *Poorvu center*, Yale University, New Haven, CT
- 2018 **Advanced Python for Biologists**, *Edinburgh Genomics*, University of Edinburgh, UK
- 2017 **Linux and Workflows for Biologists**, *Edinburgh Genomics*, University of Edinburgh, UK
- 2017 **Infectious Disease Mapping Workshop**, London School of Hygiene and Tropical Medicine, UK

Funding and Awards

- 2023 **ACAV Student travel award**, *Awarded for travel to ASTMH meeting*
- 2023 **Ker Memorial Prize**, *Awarded for best PhD thesis in Infectious Disease at the University of Edinburgh*, University of Edinburgh
- 2018 **Most Scientifically Innovative Content (Presentation award)**, *European Meeting of PhD students in Evolutionary Biology*, Grenada, Spain
- 2017 **£93,000 EASTBIO BBSRC DTP award**, *Four year duration PhD programme*, University of Edinburgh
- 2017 **Eldryd Parry Prize**, *Awarded for highest results in MSc Control of Infectious Diseases*, London School of Hygiene and Tropical Medicine
- 2017 **£2000 award from Enhancing Research Activities in Epidemic Situations fund**, *To undertake MSc Research Project in Uganda*, Wellcome Trust
- 2015 **£500 Morris Long Vacation Award**, *To undertake internship with Madagascar SAVE*, New College, Oxford University
- 2015 **£2200 Higher Education Funding Council Scholarship**, *To undertake internship with Madagascar SAVE*
- 2015 **Academic Scholar**, New College, Oxford University

Service

- 2024-present Co-lead of department of Epidemiology Microbial Diseases Communications committee
- 2023-2024 Member of department of Epidemiology Microbial Diseases Communications committee
- Reviewing *Science, Nature Communications, Virus Evolution, Epidemics, Molecular Biology and Evolution, Methods in Ecology and Evolution, The Lancet Regional Health - Americas, The Lancet Global Health, PLOS Genetics, Genome Biology and Evolution Cell reports: Medicine*

Public Engagement

- 2024 **Live TV interview**, *Eastern Equine Encephalitis virus*, Fox Weather
- 2024 **Newspaper interview**, *What is the deadly "Triple E" mosquito virus spreading in the northeastern US?*, Areesha Lodhi, Al Jazeera
- 2023 **Newspaper interview**, *The next worrisome coronavirus variant could come from China - will it get detected*, Dyani Lewis, Nature
- 2023 **Newspaper interview**, *How worried should we be about XBB.1.5*, Katherine Wu, The Atlantic
- 2022 **Newspaper interview**, *Will we get Omicron'd again*, Katherine Wu, The Atlantic
- 2022 **Podcast interview**, *Looking ahead to our third pandemic winter*, Science Friday
- 2022 **Newspaper interview**, *The BA.5 wave is what COVID normal looks like*, Katherine Wu, The Atlantic
- 2021 **Panel discussion**, *Shedding light on the invisible - how genomics is helping defeat a pandemic*, Wellcome Trust
- 2021 **Panel discussion**, *How UK science leads the fight against Coronavirus*, Swindon Science Festival
- 2021 **Podcast interview**, *The New Variant Drama*, The Vax Files
- 2020 **Radio interview**, *20 minute segment on COVID-19*, Radio Verulam
- 2020 **Newspaper interview**, *Genetic tracking helped us fight Ebola. Why can't it halt COVID-19*, Philip Keifer, 538
- 2018-2020 **BioPod interviewer and fact checker**, *Edinburgh University podcast about research ongoing in the School of Biological Science*
- 2018 **Participant in I'm a scientist, get me out of here!**, Two week event responding to online questions and live chats from secondary school children about any aspect of my research, research on epidemics, and science in general.
- 2017 **Presenter for Sci-fun roadshow**, I helped to demonstrate a number of small and quick science workstations in schools around Edinburgh to show to children in early secondary school.
- 2016-2020 **Blog**, Explaining topics in virus evolution and public health, aimed at interested members of the general public. Over 3,500 views., <https://wordpress.com/view/viralverity.wordpress.com>
- 2016-2017 **Presenter for Sublime Science**, Performing science experience for children's birthday parties aged 5-12
- 2015-2016 **Volunteer in Royal Society public engagement events**, Worked with Professor Ashleigh Griffin's research group on two events to demonstrate key concepts in social evolution to members of the general public people of all ages.
- 2015 **Mentor for Schools plus**, I mentored secondary school children from the Oxford Academy in science for seven one-hour sessions to improve their confidence and interest in science, as well as their GCSE grades.

References

Prof. Andrew Rambaut

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Prof. Nathan Grubaugh

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