## Nathan D Grubaugh

List of Publications by Year in descending order

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| #  | Article                                                                                                                                                                              | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Longitudinal analyses reveal immunological misfiring in severe COVID-19. Nature, 2020, 584, 463-469.                                                                                 | 27.8 | 1,710     |
| 2  | Sex differences in immune responses that underlie COVID-19 disease outcomes. Nature, 2020, 588, 315-320.                                                                             | 27.8 | 1,035     |
| 3  | Multiplex PCR method for MinION and Illumina sequencing of Zika and other virus genomes directly from clinical samples. Nature Protocols, 2017, 12, 1261-1276.                       | 12.0 | 898       |
| 4  | Saliva or Nasopharyngeal Swab Specimens for Detection of SARS-CoV-2. New England Journal of<br>Medicine, 2020, 383, 1283-1286.                                                       | 27.0 | 823       |
| 5  | Measurement of SARS-CoV-2 RNA in wastewater tracks community infection dynamics. Nature<br>Biotechnology, 2020, 38, 1164-1167.                                                       | 17.5 | 785       |
| 6  | An amplicon-based sequencing framework for accurately measuring intrahost virus diversity using<br>PrimalSeq and iVar. Genome Biology, 2019, 20, 8.                                  | 8.8  | 712       |
| 7  | Analytical sensitivity and efficiency comparisons of SARS-CoV-2 RT–qPCR primer–probe sets. Nature<br>Microbiology, 2020, 5, 1299-1305.                                               | 13.3 | 661       |
| 8  | Diverse functional autoantibodies in patients with COVID-19. Nature, 2021, 595, 283-288.                                                                                             | 27.8 | 619       |
| 9  | SARS–CoV-2 infection of the placenta. Journal of Clinical Investigation, 2020, 130, 4947-4953.                                                                                       | 8.2  | 387       |
| 10 | Making Sense of Mutation: What D614G Means for the COVID-19 Pandemic Remains Unclear. Cell, 2020,<br>182, 794-795.                                                                   | 28.9 | 353       |
| 11 | Zika virus evolution and spread in the Americas. Nature, 2017, 546, 411-415.                                                                                                         | 27.8 | 323       |
| 12 | Coast-to-Coast Spread of SARS-CoV-2 during the Early Epidemic in the United States. Cell, 2020, 181, 990-996.e5.                                                                     | 28.9 | 321       |
| 13 | Neutralizing antibodies against the SARS-CoV-2 Delta and Omicron variants following heterologous<br>CoronaVac plus BNT162b2 booster vaccination. Nature Medicine, 2022, 28, 481-485. | 30.7 | 316       |
| 14 | Tracking virus outbreaks in the twenty-first century. Nature Microbiology, 2019, 4, 10-19.                                                                                           | 13.3 | 305       |
| 15 | Genomic epidemiology reveals multiple introductions of Zika virus into the United States. Nature, 2017, 546, 401-405.                                                                | 27.8 | 298       |
| 16 | Viral Dynamics of SARS-CoV-2 Variants in Vaccinated and Unvaccinated Persons. New England Journal of Medicine, 2021, 385, 2489-2491.                                                 | 27.0 | 216       |
| 17 | SalivaDirect: A simplified and flexible platform to enhance SARS-CoV-2 testing capacity. Med, 2021, 2, 263-280.e6.                                                                   | 4.4  | 211       |
| 18 | Multiplex qPCR discriminates variants of concern to enhance global surveillance of SARS-CoV-2. PLoS<br>Biology, 2021, 19, e3001236.                                                  | 5.6  | 200       |

| #  | Article                                                                                                                                                                                     | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Impact of circulating SARS-CoV-2 variants on mRNA vaccine-induced immunity. Nature, 2021, 600, 523-529.                                                                                     | 27.8 | 194       |
| 20 | Delayed production of neutralizing antibodies correlates with fatal COVID-19. Nature Medicine, 2021, 27, 1178-1186.                                                                         | 30.7 | 183       |
| 21 | Common PIEZO1 Allele in African Populations Causes RBC Dehydration and Attenuates Plasmodium Infection. Cell, 2018, 173, 443-455.e12.                                                       | 28.9 | 176       |
| 22 | Ebola Virus Glycoprotein with Increased Infectivity Dominated the 2013–2016 Epidemic. Cell, 2016, 167, 1088-1098.e6.                                                                        | 28.9 | 173       |
| 23 | Public health actions to control new SARS-CoV-2 variants. Cell, 2021, 184, 1127-1132.                                                                                                       | 28.9 | 149       |
| 24 | We shouldn't worry when a virus mutates during disease outbreaks. Nature Microbiology, 2020, 5,<br>529-530.                                                                                 | 13.3 | 136       |
| 25 | Why does Japan have so few cases of COVIDâ€19?. EMBO Molecular Medicine, 2020, 12, e12481.                                                                                                  | 6.9  | 133       |
| 26 | Viral dynamics of acute SARS-CoV-2 infection and applications to diagnostic and public health strategies. PLoS Biology, 2021, 19, e3001333.                                                 | 5.6  | 133       |
| 27 | Genetic Drift during Systemic Arbovirus Infection of Mosquito Vectors Leads to Decreased Relative<br>Fitness during Host Switching. Cell Host and Microbe, 2016, 19, 481-492.               | 11.0 | 125       |
| 28 | Maternal respiratory SARS-CoV-2 infection in pregnancy is associated with a robust inflammatory response at the maternal-fetal interface. Med, 2021, 2, 591-610.e10.                        | 4.4  | 122       |
| 29 | Divergent and self-reactive immune responses in the CNS of COVID-19 patients with neurological symptoms. Cell Reports Medicine, 2021, 2, 100288.                                            | 6.5  | 121       |
| 30 | COVID-19 vaccines: Keeping pace with SARS-CoV-2 variants. Cell, 2021, 184, 5077-5081.                                                                                                       | 28.9 | 114       |
| 31 | Early introductions and transmission of SARS-CoV-2 variant B.1.1.7 in the United States. Cell, 2021, 184, 2595-2604.e13.                                                                    | 28.9 | 113       |
| 32 | West African Anopheles gambiae mosquitoes harbor a taxonomically diverse virome including new insect-specific flaviviruses, mononegaviruses, and totiviruses. Virology, 2016, 498, 288-299. | 2.4  | 112       |
| 33 | Acute encephalopathy with elevated CSF inflammatory markers as the initial presentation of COVID-19.<br>BMC Neurology, 2020, 20, 248.                                                       | 1.8  | 108       |
| 34 | Arbovirus coinfection and co-transmission: A neglected public health concern?. PLoS Biology, 2019, 17, e3000130.                                                                            | 5.6  | 106       |
| 35 | Comparative transmissibility of SARS-CoV-2 variants Delta and Alpha in New England, USA. Cell Reports<br>Medicine, 2022, 3, 100583.                                                         | 6.5  | 101       |
| 36 | Single-cell multi-omics reveals dyssynchrony of the innate and adaptive immune system in progressive COVID-19. Nature Communications, 2022, 13, 440.                                        | 12.8 | 100       |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | Precision epidemiology for infectious disease control. Nature Medicine, 2019, 25, 206-211.                                                                                                                                | 30.7 | 94        |
| 38 | Evaluation of ivermectin mass drug administration for malaria transmission control across different<br>West African environments. Malaria Journal, 2014, 13, 417.                                                         | 2.3  | 93        |
| 39 | Neutralizing human monoclonal antibodies prevent Zika virus infection in macaques. Science<br>Translational Medicine, 2017, 9, .                                                                                          | 12.4 | 89        |
| 40 | Twenty years of West Nile virus spread and evolution in the Americas visualized by Nextstrain. PLoS<br>Pathogens, 2019, 15, e1008042.                                                                                     | 4.7  | 87        |
| 41 | Fetal demise and failed antibody therapy during Zika virus infection of pregnant macaques. Nature<br>Communications, 2018, 9, 1624.                                                                                       | 12.8 | 68        |
| 42 | Travel Surveillance and Genomics Uncover a Hidden Zika Outbreak during the Waning Epidemic. Cell, 2019, 178, 1057-1071.e11.                                                                                               | 28.9 | 68        |
| 43 | Sampling bias and incorrect rooting make phylogenetic network tracing of SARS-COV-2 infections<br>unreliable. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117,<br>12522-12523. | 7.1  | 68        |
| 44 | Xenosurveillance: A Novel Mosquito-Based Approach for Examining the Human-Pathogen Landscape.<br>PLoS Neglected Tropical Diseases, 2015, 9, e0003628.                                                                     | 3.0  | 67        |
| 45 | Mosquitoes Transmit Unique West Nile Virus Populations during Each Feeding Episode. Cell Reports,<br>2017, 19, 709-718.                                                                                                   | 6.4  | 67        |
| 46 | Inferring the risk factors behind the geographical spread and transmission of Zika in the Americas.<br>PLoS Neglected Tropical Diseases, 2018, 12, e0006194.                                                              | 3.0  | 67        |
| 47 | Detection of SARS-CoV-2 RNA by multiplex RT-qPCR. PLoS Biology, 2020, 18, e3000867.                                                                                                                                       | 5.6  | 64        |
| 48 | Rapid emergence of SARS-CoV-2 Omicron variant is associated with an infection advantage over Delta in vaccinated persons. Med, 2022, 3, 325-334.e4.                                                                       | 4.4  | 60        |
| 49 | Genomic Insights into Zika Virus Emergence and Spread. Cell, 2018, 172, 1160-1162.                                                                                                                                        | 28.9 | 56        |
| 50 | Experimental Evolution of an RNA Virus in Wild Birds: Evidence for Host-Dependent Impacts on Population Structure and Competitive Fitness. PLoS Pathogens, 2015, 11, e1004874.                                            | 4.7  | 51        |
| 51 | Ontogeny of the B- and T-cell response in a primary Zika virus infection of a dengue-naÃ <sup>-</sup> ve individual<br>during the 2016 outbreak in Miami, FL. PLoS Neglected Tropical Diseases, 2017, 11, e0006000.       | 3.0  | 48        |
| 52 | Small RNA responses of Culex mosquitoes and cell lines during acute and persistent virus infection.<br>Insect Biochemistry and Molecular Biology, 2019, 109, 13-23.                                                       | 2.7  | 47        |
| 53 | A stem-loop RNA RIG-I agonist protects against acute and chronic SARS-CoV-2 infection in mice. Journal of Experimental Medicine, 2022, 219, .                                                                             | 8.5  | 46        |
| 54 | MOG-associated encephalitis following SARS-COV-2 infection. Multiple Sclerosis and Related Disorders, 2021, 50, 102857.                                                                                                   | 2.0  | 45        |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 55 | Lying in wait: the resurgence of dengue virus after the Zika epidemic in Brazil. Nature<br>Communications, 2021, 12, 2619.                                                                                                           | 12.8 | 43        |
| 56 | Omicron-specific mRNA vaccination alone and as a heterologous booster against SARS-CoV-2. Nature Communications, 2022, 13, .                                                                                                         | 12.8 | 40        |
| 57 | Isolation and genomic characterization of Chaoyang virus strain ROK144 from Aedes vexans nipponii from the Republic of Korea. Virology, 2013, 435, 220-224.                                                                          | 2.4  | 39        |
| 58 | Dynamics of West Nile virus evolution in mosquito vectors. Current Opinion in Virology, 2016, 21, 132-138.                                                                                                                           | 5.4  | 39        |
| 59 | Experimental Evolution to Study Virus Emergence. Cell, 2017, 169, 1-3.                                                                                                                                                               | 28.9 | 39        |
| 60 | COVID-19 one year into the pandemic: from genetics and genomics to therapy, vaccination, and policy.<br>Human Genomics, 2021, 15, 27.                                                                                                | 2.9  | 39        |
| 61 | Transmission bottlenecks and RNAi collectively influence tick-borne flavivirus evolution. Virus<br>Evolution, 2016, 2, vew033.                                                                                                       | 4.9  | 35        |
| 62 | Epidemiological hypothesis testing using a phylogeographic and phylodynamic framework. Nature<br>Communications, 2020, 11, 5620.                                                                                                     | 12.8 | 35        |
| 63 | Evidence for SARS-CoV-2 Spike Protein in the Urine of COVID-19 Patients. Kidney360, 2021, 2, 924-936.                                                                                                                                | 2.1  | 34        |
| 64 | Emergence of an early SARS-CoV-2 epidemic in the United States. Cell, 2021, 184, 4939-4952.e15.                                                                                                                                      | 28.9 | 31        |
| 65 | Adventitious viruses persistently infect three commonly used mosquito cell lines. Virology, 2018, 521, 175-180.                                                                                                                      | 2.4  | 29        |
| 66 | Misperceived Risks of Zika-related Microcephaly in India. Trends in Microbiology, 2019, 27, 381-383.                                                                                                                                 | 7.7  | 28        |
| 67 | The Use of Xenosurveillance to Detect Human Bacteria, Parasites, and Viruses in Mosquito<br>Bloodmeals. American Journal of Tropical Medicine and Hygiene, 2017, 97, 324-329.                                                        | 1.4  | 26        |
| 68 | Asynchronicity of endemic and emerging mosquito-borne disease outbreaks in the Dominican Republic.<br>Nature Communications, 2021, 12, 151.                                                                                          | 12.8 | 22        |
| 69 | Assessment of Clinical Effectiveness of BNT162b2 COVID-19 Vaccine in US Adolescents. JAMA Network<br>Open, 2022, 5, e220935.                                                                                                         | 5.9  | 20        |
| 70 | Of variants and vaccines. Cell, 2021, 184, 6222-6223.                                                                                                                                                                                | 28.9 | 18        |
| 71 | Evaluation of a Field-Portable DNA Microarray Platform and Nucleic Acid Amplification Strategies for the Detection of Arboviruses, Arthropods, and Bloodmeals. American Journal of Tropical Medicine and Hygiene, 2013, 88, 245-253. | 1.4  | 17        |
| 72 | Temporal and Spatial Variability of Entomological Risk Indices for West Nile Virus Infection in Northern Colorado: 2006–2013. Journal of Medical Entomology, 2016, 53, 425-434.                                                      | 1.8  | 16        |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Isolation of a Novel Insect-Specific Flavivirus from <i>Culiseta melanura</i> in the Northeastern<br>United States. Vector-Borne and Zoonotic Diseases, 2016, 16, 181-190.                                                                                   | 1.5 | 15        |
| 74 | Real-time public health communication of local SARS-CoV-2 genomic epidemiology. PLoS Biology, 2020, 18, e3000869.                                                                                                                                            | 5.6 | 15        |
| 75 | Multi-Gene Detection and Identification of Mosquito-Borne RNA Viruses Using an Oligonucleotide<br>Microarray. PLoS Neglected Tropical Diseases, 2013, 7, e2349.                                                                                              | 3.0 | 11        |
| 76 | Sampling Host-Seeking Anthropophilic Mosquito Vectors in West Africa: Comparisons of an Active<br>Human-Baited Tent-Trap Against Gold Standard Methods. American Journal of Tropical Medicine and<br>Hygiene, 2015, 92, 415-421.                             | 1.4 | 11        |
| 77 | West Nile Virus Population Structure, Injury, and Interferon-Stimulated Gene Expression in the Brain<br>From a Fatal Case of Encephalitis. Open Forum Infectious Diseases, 2016, 3, ofv182.                                                                  | 0.9 | 11        |
| 78 | Partial ORF1ab Gene Target Failure with Omicron BA.2.12.1. Journal of Clinical Microbiology, 2022, 60, e0060022.                                                                                                                                             | 3.9 | 11        |
| 79 | Intrahost speciations and host switches played an important role in the evolution of herpesviruses.<br>Virus Evolution, 2021, 7, veab025.                                                                                                                    | 4.9 | 10        |
| 80 | Tracking smell loss to identify healthcare workers with SARS-CoV-2 infection. PLoS ONE, 2021, 16, e0248025.                                                                                                                                                  | 2.5 | 10        |
| 81 | Two Sides of a Coin: a Zika Virus Mutation Selected in Pregnant Rhesus Macaques Promotes Fetal<br>Infection in Mice but at a Cost of Reduced Fitness in Nonpregnant Macaques and Diminished<br>Transmissibility by Vectors. Journal of Virology, 2020, 94, . | 3.4 | 10        |
| 82 | Severe Acute Respiratory Syndrome Coronavirus 2 Reinfection: A Case Series From a 12-Month<br>Longitudinal Occupational Cohort. Clinical Infectious Diseases, 2022, 74, 1682-1685.                                                                           | 5.8 | 9         |
| 83 | Evaluation of saliva self-collection devices for SARS-CoV-2 diagnostics. BMC Infectious Diseases, 2022, 22, 284.                                                                                                                                             | 2.9 | 9         |
| 84 | Combining genomic and epidemiological data to compare the transmissibility of SARS-CoV-2 variants<br>Alpha and lota. Communications Biology, 2022, 5, 439.                                                                                                   | 4.4 | 9         |
| 85 | Longitudinal Immune Profiling of a Severe Acute Respiratory Syndrome Coronavirus 2 Reinfection in a<br>Solid Organ Transplant Recipient. Journal of Infectious Diseases, 2022, 225, 374-384.                                                                 | 4.0 | 7         |
| 86 | Endless Forms: Within-Host Variation in the Structure of the West Nile Virus RNA Genome during<br>Serial Passage in Bird Hosts. MSphere, 2019, 4, .                                                                                                          | 2.9 | 5         |
| 87 | Multiple Transmission Chains within COVID-19 Cluster, Connecticut, USA, 20201. Emerging Infectious<br>Diseases, 2021, 27, 2669-2672.                                                                                                                         | 4.3 | 5         |
| 88 | Zika Virus Non-Structural Protein 1 Antigen-Capture Immunoassay. Viruses, 2021, 13, 1771.                                                                                                                                                                    | 3.3 | 5         |
| 89 | COVID-19 Outcomes and Genomic Characterization of SARS-CoV-2 Isolated From Veterans in New England States: Retrospective Analysis. Jmirx Med, 2021, 2, e31503.                                                                                               | 0.4 | 5         |
| 90 | An outbreak of SARSâ€CoVâ€⊋ on a transplant unit in the early vaccination era. Transplant Infectious<br>Disease, 2022, 24, .                                                                                                                                 | 1.7 | 5         |

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|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 91  | Reply to: A finding of sex similarities rather than differences in COVID-19 outcomes. Nature, 2021, 597, E10-E11.                                                                                                                                       | 27.8 | 4         |
| 92  | Tracing the Origin, Spread, and Molecular Evolution of Zika Virus in Puerto Rico, 2016–2017. Emerging<br>Infectious Diseases, 2021, 27, 2971-2973.                                                                                                      | 4.3  | 4         |
| 93  | Sequencing SARS-CoV-2 genomes from saliva. Virus Evolution, 2022, 8, veab098.                                                                                                                                                                           | 4.9  | 4         |
| 94  | Translating virus evolution into epidemiology. Cell Host and Microbe, 2022, 30, 444-448.                                                                                                                                                                | 11.0 | 4         |
| 95  | Case Study: Longitudinal immune profiling of a SARS-CoV-2 reinfection in a solid organ transplant recipient. , 2021, , .                                                                                                                                |      | 3         |
| 96  | 456. Implementing an At-Home Smell Test for Early Assessment of COVID-19 in High-Risk Healthcare<br>Workers. Open Forum Infectious Diseases, 2020, 7, S295-S296.                                                                                        | 0.9  | 2         |
| 97  | Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Outbreak at a College With High<br>Coronavirus Disease 2019 (COVID-19) Vaccination Coverage—Connecticut, August 2021–September 2021.<br>Clinical Infectious Diseases, 2022, 75, S243-S250. | 5.8  | 2         |
| 98  | Navigating the Zika panic. F1000Research, 2016, 5, 1914.                                                                                                                                                                                                | 1.6  | 1         |
| 99  | Clinical effectiveness of additional primary SARSâ€CoVâ€2 vaccine doses for solid organ transplant recipients. Clinical Transplantation, 2022, 36, e14601.                                                                                              | 1.6  | 1         |
| 100 | Abstract S03-03: Cancer patients display diminished viral RNA clearance and altered T cell responses during SARS-CoV-2 infection. , 2021, , .                                                                                                           |      | 0         |
| 101 | Authors' Response to Peer Reviews of "COVID-19 Outcomes and Genomic Characterization of SARS-CoV-2 Isolated From Veterans in New England States: Retrospective Analysis― Jmirx Med, 2021, 2, e35515.                                                    | 0.4  | 0         |
| 102 | 301. Detection of Pneumococcal Pneumonia During SARS-CoV-2 Infection. Open Forum Infectious Diseases, 2021, 8, S257-S257.                                                                                                                               | 0.9  | 0         |
| 103 | 362. Saliva as a Reliable Sample Type for Mass SARS-CoV-2 Testing Strategies. Open Forum Infectious<br>Diseases, 2021, 8, S284-S284.                                                                                                                    | 0.9  | 0         |