Curriculum Vitae
Timothy P. Sheahan, Ph.D.

ADDRESS:

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Gillings School of Global Public Health
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EDUCATION:

2003-2008	**Ph.D. Microbiology and Immunology** University of North Carolina, Department of Microbiology and Immunology, Chapel Hill, NC
1994-1999	**B.S. Microbiology/Water Resources** University of New Hampshire, Department of Microbiology, Department of Natural Resources, Durham, NH

PROFESSIONAL EXPERIENCE:

2021-Present	Assistant Professor (Tenure Track), Department of Epidemiology, University of North Carolina, Chapel Hill, NC
2015-2021	Research Assistant Professor, Department of Epidemiology, University of North Carolina, Chapel Hill, NC
2014-2015	Investigator, Antiviral Discovery Performance Unit, GlaxoSmithKline (GSK), RTP, NC
2009-2014	Postdoctoral Fellow, Laboratory of Virology and Infectious Disease, *Dr. Charles M. Rice (Nobel Laureate)*, The Rockefeller University, NY
2008-2009	Postdoctoral Research Associate, Department of Epidemiology, *Dr. Ralph S. Baric Laboratory*, University of North Carolina, Chapel Hill, NC
2003-2008	Graduate Student, Department of Microbiology and Immunology, *Dr. Ralph S. Baric Laboratory,* University of North Carolina, Chapel Hill, NC
2001-2003	Research Associate, Department of Pediatric Surgery, *Dr. Joseph P. Vacanti Laboratory*, Massachusetts General Hospital, Boston, MA
1999-2001	Research Associate, The Harvard Gene Therapy Initiative, *Dr. Richard Mulligan Laboratory*, Harvard Medical School, Boston, MA

HONORS:

2020	Invited to join the Lancet COVID-19 Commission: Vaccines and Therapeutics Task Force (Chairs: Dr. Jeffrey Sachs, Dr. Peter Hotez, Dr. Maria Elena Bottazzi)
2020	Awarded cover story for Science Translational Medicine for “An orally bioavailable broad-spectrum antiviral inhibits SARS-CoV-2 in human airway epithelial cell cultures and multiple coronaviruses in mice”.
2017	Awarded cover story for Science Translational Medicine for “Broad-spectrum antiviral GS-5734 inhibits both epidemic and zoonotic coronaviruses”.
2015	Second Place Global GSK Beautiful Biology Award. *“In vivo imaging: A new platform to accelerate drug discovery at the host/pathogen interface”.*
2015	Third Place Regional GSK Beautiful Biology Award. *“In vivo imaging: A new platform to accelerate drug discovery at the host/pathogen interface”.*
2009-2012	Ruth L. Kirschstein National Research Service Award (Postdoctoral Fellowship).
2001-2002	Partners in Excellence Award, Massachusetts General Hospital.
1998	Gordon Byers Scholarship for an Outstanding Water Resources Student.

MEMBERSHIPS:

2019-Present	International Society for Antiviral Research member
2007-Present	American Society for Virology member
2002-2021	American Society for Microbiology member

BIBLIOGRAPHY:

Books and Chapters

1. Pericàs JM, Farrero M, Hernández-Meneses M, **Sheahan TP**, Falces C, Ambrosioni J, Quintana E, Dahl A, Vidal B, Sandoval E, Perissinotti A, Moreno A, Miro JM and the Hospital Clínic Cardiovascular Infections Study Group. Coronaviruses and the cardiovascular system. Camm AJ, Lüscher T, Serruys P, and Maurer G (Eds.) ESC CardioMed (3rd Edition). European Society of Cardiology. Chapter P3S28C008. Oxford University Press. Oxford. England. 2020
2. **Sheahan TP**, Baric R. SARS-CoV Pathogenesis and Therapeutic Treatment Design. 2010. Molecular Biology of the SARS-Coronavirus. Lal, Sunil K. (Ed.) pp.195-230
3. **Sheahan TP**, Deming D, Donaldson E, Pickles R, Baric R. Resurrection of an "extinct" SARS-CoV isolate GD03 from late 2003. Adv Exp Med Biol 2006; 581: 547-550.
4. Baric RS, **Sheahan TP**, Deming D, Donaldson E, Yount B, Sims AC, Roberts RS, Frieman M, Rockx B. SARS coronavirus vaccine development. Adv Exp Med Biol 2006; 581: 553-560

Peer Reviewed Articles (56)

1. Zhou S, Hill CS, Sarkar S, Tse LV, Woodburn BMD, Schinazi RF, Sheahan TP, Baric RS, Heise MT, Swanstrom R. beta-d-N4-hydroxycytidine Inhibits SARS-CoV-2 Through Lethal Mutagenesis But Is Also Mutagenic To Mammalian Cells. *J Infect Dis.* 2021;224(3):415-419.

2. Zhou S, Hill CS, Clark MU, Sheahan TP, Baric R, Swanstrom R. Primer ID Next-Generation Sequencing for the Analysis of a Broad Spectrum Antiviral Induced Transition Mutations and Errors Rates in a Coronavirus Genome. *Bio Protoc.* 2021;11(5):e3938.

3. Zhang K, Zheludev IN, Hagey RJ, Haslecker R, Hou YJ, Kretsch R, Pintilie GD, Rangan R, Kladwang W, Li S, Wu MT, Pham EA, Bernardin-Souibgui C, Baric RS, Sheahan TP, D'Souza V, Glenn JS, Chiu W, Das R. Cryo-EM and antisense targeting of the 28-kDa frameshift stimulation element from the SARS-CoV-2 RNA genome. *Nat Struct Mol Biol.* 2021.

4. Yamin R, Jones AT, Hoffmann HH, Schafer A, Kao KS, Francis RL, Sheahan TP, Baric RS, Rice CM, Ravetch JV, Bournazos S. Fc-engineered antibody therapeutics with improved anti-SARS-CoV-2 efficacy. *Nature.* 2021.

5. Sims AC, Mitchell HD, Gralinski LE, Kyle JE, Burnum-Johnson KE, Lam M, Fulcher ML, West A, Smith RD, Randell SH, Metz TO, Sheahan TP, Waters KM, Baric RS. Unfolded Protein Response Inhibition Reduces Middle East Respiratory Syndrome Coronavirus-Induced Acute Lung Injury. *mBio.* 2021;12(4):e0157221.

6. Schafer A, Muecksch F, Lorenzi JCC, Leist SR, Cipolla M, Bournazos S, Schmidt F, Maison RM, Gazumyan A, Martinez DR, Baric RS, Robbiani DF, Hatziioannou T, Ravetch JV, Bieniasz PD, Bowen RA, Nussenzweig MC, Sheahan TP. Antibody potency, effector function, and combinations in protection and therapy for SARS-CoV-2 infection in vivo. *J Exp Med.* 2021;218(3).

7. Martinez DR, Schafer A, Leist SR, Li D, Gully K, Yount B, Feng JY, Bunyan E, Porter DP, Cihlar T, Montgomery SA, Haynes BF, Baric RS, Nussenzweig MC, Sheahan TP. Prevention and therapy of SARS-CoV-2 and the B.1.351 variant in mice. *Cell Rep.* 2021:109450.

8. Hanafin PO, Jermain B, Hickey AJ, Kabanov AV, Kashuba AD, Sheahan TP, Rao GG. A mechanism-based pharmacokinetic model of remdesivir leveraging interspecies scaling to simulate COVID-19 treatment in humans. *CPT Pharmacometrics Syst Pharmacol.* 2021;10(2):89-99.

9. Hall MD, Anderson JM, Anderson A, Baker D, Bradner J, Brimacombe KR, Campbell EA, Corbett KS, Carter K, Cherry S, Chiang L, Cihlar T, de Wit E, Denison M, Disney M, Fletcher CV, Ford-Scheimer SL, Gotte M, Grossman AC, Hayden FG, Hazuda DJ, Lanteri CA, Marston H, Mesecar AD, Moore S, Nwankwo JO, O'Rear J, Painter G, Singh Saikatendu K, Schiffer CA, Sheahan TP, Shi PY, Smyth HD, Sofia MJ, Weetall M, Weller SK, Whitley R, Fauci AS, Austin CP, Collins FS, Conley AJ, Davis MI. Report of the National Institutes of Health SARS-CoV-2 Antiviral Therapeutics Summit. *J Infect Dis.* 2021;224(Supplement_1):S1-S21.

10. Feng S, Heath E, Jefferson B, Joslyn C, Kvinge H, Mitchell HD, Praggastis B, Eisfeld AJ, Sims AC, Thackray LB, Fan S, Walters KB, Halfmann PJ, Westhoff-Smith D, Tan Q, Menachery VD, Sheahan TP, Cockrell AS, Kocher JF, Stratton KG, Heller NC, Bramer LM, Diamond MS, Baric RS, Waters KM, Kawaoka Y, McDermott JE, Purvine E. Hypergraph models of biological

networks to identify genes critical to pathogenic viral response. *BMC Bioinformatics.* 2021;22(1):287.

11. Adams LE, Dinnon KH, 3rd, Hou YJ, Sheahan TP, Heise MT, Baric RS. Critical ACE2 Determinants of SARS-CoV-2 and Group 2B Coronavirus Infection and Replication. *mBio.* 2021;12(2).

12. Zivich PN, Eisenberg MC, Monto AS, Uzicanin A, Baric RS, Sheahan TP, Rainey JJ, Gao H, Aiello AE. Transmission of viral pathogens in a social network of university students: the eX-FLU study. *Epidemiol Infect.* 2020;148:e267.

13. Walls AC, Fiala B, Schafer A, Wrenn S, Pham MN, Murphy M, Tse LV, Shehata L, O'Connor MA, Chen C, Navarro MJ, Miranda MC, Pettie D, Ravichandran R, Kraft JC, Ogohara C, Palser A, Chalk S, Lee EC, Guerriero K, Kepl E, Chow CM, Sydeman C, Hodge EA, Brown B, Fuller JT, Dinnon KH, 3rd, Gralinski LE, Leist SR, Gully KL, Lewis TB, Guttman M, Chu HY, Lee KK, Fuller DH, Baric RS, Kellam P, Carter L, Pepper M, Sheahan TP, Veesler D, King NP. Elicitation of Potent Neutralizing Antibody Responses by Designed Protein Nanoparticle Vaccines for SARS-CoV-2. *Cell.* 2020.

14. Sheahan TP, Sims AC, Zhou S, Graham RL, Pruijssers AJ, Agostini ML, Leist SR, Schafer A, Dinnon KH, 3rd, Stevens LJ, Chappell JD, Lu X, Hughes TM, George AS, Hill CS, Montgomery SA, Brown AJ, Bluemling GR, Natchus MG, Saindane M, Kolykhalov AA, Painter G, Harcourt J, Tamin A, Thornburg NJ, Swanstrom R, Denison MR, Baric RS. An orally bioavailable broad-spectrum antiviral inhibits SARS-CoV-2 in human airway epithelial cell cultures and multiple coronaviruses in mice. *Sci Transl Med.* 2020.

15. Sheahan TP, Sims AC, Leist SR, Schafer A, Won J, Brown AJ, Montgomery SA, Hogg A, Babusis D, Clarke MO, Spahn JE, Bauer L, Sellers S, Porter D, Feng JY, Cihlar T, Jordan R, Denison MR, Baric RS. Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERS-CoV. *Nat Commun.* 2020;11(1):222.

16. Sheahan TP, Frieman, M.B. The continued epidemic threat of SARS-CoV-2 and implications for the future of global public health. *Curr Opin Virol.* 2020;40:37-40.

17. Pruijssers AJ, George AS, Schäfer A, Leist SR, Gralinksi LE, Dinnon KH, Yount BL, Agostini ML, Stevens LJ, Chappell JD, Lu X, Hughes TM, Gully K, Martinez DR, Brown AJ, Graham RL, Perry JK, Du Pont V, Pitts J, Ma B, Babusis D, Murakami E, Feng JY, Bilello JP, Porter DP, Cihlar T, Baric RS, Denison MR, Sheahan TP. Remdesivir potently inhibits SARS-CoV-2 in human lung cells and chimeric SARS-CoV expressing the SARS-CoV-2 RNA polymerase in mice. *Cell Reports.* 2020.

18. Pericàs JM, Hernandez-Meneses M, Sheahan TP, Quintana E, Ambrosioni J, Sandoval E, Falces C, Marcos MA, Tuset M, Vilella A, Moreno A, Miro JM. COVID-19: from epidemiology to treatment. *Eur Heart J.* 2020;41(22):2092-2112.

19. Lindesmith LC, Brewer-Jensen PD, Mallory ML, Jensen K, Yount BL, Costantini V, Collins MH, Edwards CE, Sheahan TP, Vinjé J, Baric RS. Virus-host interactions between non-secretors and human norovirus. *Cellular and Molecular Gastroenterology and Hepatology.* 2020.

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LE, Montgomery SA, Baric RS. A Mouse-Adapted SARS-CoV-2 Induces Acute Lung Injury and Mortality in Standard Laboratory Mice. *Cell.* 2020;183(4):1070-1085 e1012.

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22. Dinnon KH, 3rd, Leist SR, Schafer A, Edwards CE, Martinez DR, Montgomery SA, West A, Yount BL, Jr., Hou YJ, Adams LE, Gully KL, Brown AJ, Huang E, Bryant MD, Choong IC, Glenn JS, Gralinski LE, Sheahan TP, Baric RS. A mouse-adapted model of SARS-CoV-2 to test COVID-19 countermeasures. *Nature.* 2020;586(7830):560-566.

23. Leist SR, Jensen KL, Baric RS, Sheahan TP. Increasing the translation of mouse models of MERS coronavirus pathogenesis through kinetic hematological analysis. *PLoS One.* 2019;14(7):e0220126.

24. Brown AJ, Won JJ, Graham RL, Dinnon KH, 3rd, Sims AC, Feng JY, Cihlar T, Denison MR, Baric RS, Sheahan TP. Broad spectrum antiviral remdesivir inhibits human endemic and zoonotic deltacoronaviruses with a highly divergent RNA dependent RNA polymerase. *Antiviral Res.* 2019;169:104541.

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26. Lindesmith LC, Mallory ML, Debbink K, Donaldson EF, Brewer-Jensen PD, Swann EW, Sheahan TP, Graham RL, Beltramello M, Corti D, Lanzavecchia A, Baric RS. Conformational Occlusion of Blockade Antibody Epitopes, a Novel Mechanism of GII.4 Human Norovirus Immune Evasion. *mSphere.* 2018;3(1).

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39. Sheahan T, Jones CT, Ploss A. Advances and challenges in studying hepatitis C virus in its native environment. *Expert Rev Gastroenterol Hepatol.* 2010;4(5):541-550.

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42. Sheahan T, Rockx B, Donaldson E, Sims A, Pickles R, Corti D, Baric R. Mechanisms of zoonotic severe acute respiratory syndrome coronavirus host range expansion in human airway epithelium. *J Virol.* 2008;82(5):2274-2285.

43. Sheahan T, Rockx B, Donaldson E, Corti D, Baric R. Pathways of cross-species transmission of synthetically reconstructed zoonotic severe acute respiratory syndrome coronavirus. *J Virol.* 2008;82(17):8721-8732.

44. Sheahan T, Morrison TE, Funkhouser W, Uematsu S, Akira S, Baric RS, Heise MT. MyD88 is required for protection from lethal infection with a mouse-adapted SARS-CoV. *PLoS Pathog.* 2008;4(12):e1000240.

45. Rockx B, Corti D, Donaldson E, Sheahan T, Stadler K, Lanzavecchia A, Baric R. Structural basis for potent cross-neutralizing human monoclonal antibody protection against lethal human and zoonotic severe acute respiratory syndrome coronavirus challenge. *J Virol.* 2008;82(7):3220-3235.

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51. Roberts A, Deming D, Paddock CD, Cheng A, Yount B, Vogel L, Herman BD, Sheahan T, Heise M, Genrich GL, Zaki SR, Baric R, Subbarao K. A mouse-adapted SARS-coronavirus causes disease and mortality in BALB/c mice. *PLoS Pathog.* 2007;3(1):e5.

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55. Walls AC, Miranda MC, Schafer A, Pham MN, Greaney A, Arunachalam PS, Navarro MJ, Tortorici MA, Rogers K, O'Connor MA, Shirreff L, Ferrell DE, Bowen J, Brunette N, Kepl E,

Zepeda SK, Starr T, Hsieh CL, Fiala B, Wrenn S, Pettie D, Sydeman C, Sprouse KR, Johnson M, Blackstone A, Ravichandran R, Ogohara C, Carter L, Tilles SW, Rappuoli R, Leist SR, Martinez DR, Clark M, Tisch R, O'Hagan DT, Van Der Most R, Van Voorhis WC, Corti D, McLellan JS, Kleanthous H, Sheahan TP, Smith KD, Fuller DH, Villinger F, Bloom J, Pulendran B, Baric RS, King NP, Veesler D. Elicitation of broadly protective sarbecovirus immunity by receptor-binding domain nanoparticle vaccines. *Cell.* 2021;184(21):5432-5447 e5416.

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Commentaries and Editorials

Figueroa JP, Hotez PJ, Batista C, Ben Amor Y, Ergonul O, Gilbert S, Gursel M, Hassanain M, Kang G, Kaslow DC, Kim JH, Lall B, Larson H, Naniche D, **Sheahan T**, Shoham S, Wilder-Smith A, Sow SO, Strub-Wourgaft N, Yadav P, Bottazzi ME. Achieving global equity for COVID-19 vaccines: Stronger international partnerships and greater advocacy and solidarity are needed. PLoS Med. 2021 Sep 13;18(9):e1003772. doi: 10.1371/journal.pmed.1003772. eCollection 2021 Sep.

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Naniche D, Hotez P, Bottazzi ME, Ergonul O, Figueroa JP, Gilbert S, Gursel M, Hassanain M, Kang G, Kaslow D, Kim JH, Lall B, Larson H, **Sheahan T**, Shoham S, Wilder-Smith A, Sow SO, Strub-Wourgaft N, Yadav P, Batista C. Beyond the jab: A need for global coordination of pharmacovigilance for COVID-19 vaccine deployment. EClinicalMedicine. 2021 Jun;36:100925. doi: 10.1016/j.eclinm.2021.100925.

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Lancet Commission on COVID-19 Vaccines and Therapeutics Task Force Members. Urgent needs of low-income and middle-income countries for COVID-19 vaccines and therapeutics. *Lancet*. 2021 Feb 13;397(10274):562-564. doi: 10.1016/S0140-6736(21)00242-7. PMID: 33516284

Sheahan TP, Baric RS. “Is regulation preventing the development of therapeutics that may prevent future coronavirus pandemics?” *Future Virol* 2018; 13 (3): 143-146 doi: 10.2217/fvl-2017-0143 PMID: 30546388

Sheahan TP, Rice CM. “Single cell analysis of HCV infected patient hepatocytes: the science is no longer science fiction.” *Gastroenterology* 2013; 145 (6): 1199-1202

Invited Presentations

Sheahan TP. Preparing for tomorrow's pandemics today: Accelerating therapeutic development with preclinical models of coronavirus pathogenesis. NC State, Biomanufacturing Training and Education Center (BTEC). April 23, 2021. Hosts: Drs. Danny Monroe, Krisstina Burgess and Deepa Sambandan.

Sheahan TP. Preparing for tomorrow's pandemics today: Accelerating therapeutic development with preclinical models of coronavirus pathogenesis. University of Illinois at Chicago. April 7, 2021. Hosts: Drs. Asrar Malik and Jalees Rehman.

Sheahan TP. Preparing for tomorrow's pandemics today: Accelerating therapeutic development with preclinical models of coronavirus pathogenesis. UNC Infectious Diseases Division Seminar. January 8, 2021.

Sheahan TP. Preparing for tomorrow's pandemics today. Panelist with Dr. Ralph Baric and Dr. William Fischer. Chief Executives Organization (CEO). Host Don Holzworth. December 15, 2020.

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. Albert Einstein College of Medicine Microbiology and Immunology Department Seminar. November 16, 2020. Host Dr. Eva Billerbeck.

Sheahan TP. University of North Carolina Research Week COVID-19 Panel. October 21, 2020

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. American College of Veterinary Pathologist COVID-19 Symposium. September 17, 2020.

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. NCBIO Meeting. Host: Sam Taylor and Laura Gunter. June 23, 2020.

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. Johns Hopkins Infectious Diseases Seminar Series. Host: Dr. Ashwin Balogopal. May 14, 2020.

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. Howard Hughes Medical Institute, Janelia Research Campus. COVID-19 Seminar Series. Hosts: Drs. Sarada Viswanathan & Loren Looger. May 14, 2020.

Sheahan TP. Preparing for Tomorrow’s Pandemics, Today. UNC Public Health Foundation Meeting. Host: Dean Barbara Rimer. April 29. 2020

Sheahan TP. Broad-Spectrum Antivirals to Prevent Coronavirus Epidemic Disease. ASM Biothreats, Arlington, VA, January 29, 2020

Sheahan TP. Broad-Spectrum Therapeutics to Protect Against Coronavirus Epidemic Disease. Pizza lunch podcast hosted by American Scientist Magazine, Sigma Xi the Scientific Research Society and Science Communicators of North Carolina (SCONC), The Frontier, RTP, North Carolina, November 21, 2017

Sheahan TP. Broad-Spectrum Therapeutics to Protect Against Coronavirus Epidemic Disease, International Conference on Antiviral Research, Atlanta, Georgia, May 24, 2017

Oral Presentations and Abstracts

Sheahan TP. Broad-spectrum antiviral remdesivir provides superior in vivo therapeutic efficacy against MERS-CoV compared to a combination of lopinavir/ritonavir plus interferon beta, International Conference on Antiviral Research, Baltimore, Maryland, May 14, 2019

Sheahan TP. Broad-Spectrum Therapeutics to Protect Against Coronavirus Epidemic Disease, American Society for Virology, Madison, Wisconsin, June 22, 2017

Sheahan TP. Broad-Spectrum Therapeutics to Protect Against Coronavirus Epidemic Disease, International Nidovirus Conference, Kansas City, Missouri, June 4, 2017

Sheahan TP. In vivo imaging: A new platform to accelerate drug discovery, GSK Antiviral Discovery Performance Unit Science Day, RTP, NC, *Research talk,* 2014

Sheahan TP. Transcriptomic profiling of the inflammatory response in primary human hepatocytes infected with hepatitis C virus, 19th International Symposium on Hepatitis C Virus and Related Viruses. Venice, Italy, *Research talk,* 2012

Sheahan TP. “MyD88 is required for protection from lethal SARS-CoV infection.” American Society for Virology, Ithaca, New York, *Research talk,* 2008

Sheahan TP. “In Vitro Evolution of Zoonotic SARS-CoV Bearing an SZ16 Civet S Glycoprotein.” American Society for Virology, Corvallis, Oregon, *Research talk,* 2007

Sheahan TP. “Synthetic Reconstruction and Characterization of Civet-Like and Civet-Associated SARS Coronavirus.” American Society for Virology, Madison, Wisconsin, *Research talk,* 2006

Sheahan TP. “Construction and Characterization of a Civet Cat like SARS Coronavirus.” Xth International Nidovirus Symposium, Colorado Springs, Colorado, *Research poster,* 2005

Digital and Multimedia Scholarship

Printed and Web Press

Date	Media Source	Title	Link
October 8, 2021	*Chemistry World (Royal Society of Chemistry, UK)*	New antiviral impresses against Covid-19 (Featured Source)	https://www.chemistryworld.com/news/new-antiviral-impresses-against-covid-19/4014541.article
October 1, 2021	*Washington Post*	Merck's experimental pill to treat covid-19 cuts risk of hospitalization and death in half, the pharmaceutical company reports (Featured Source)	https://www.washingtonpost.com/health/2021/10/01/pill-to-treat-covid/
September 27, 2021	*CNN*	A pill to treat Covid-19: 'We're talking about a return to, maybe, normal life'. (Featured Source)	https://www.cnn.com/2021/09/27/health/covid-treatment-pill-khn-partner/index.html
September 24, 2021	*Wall Street Journal*	Virus Research Has Exploded Since Covid-19 Hit. Is It Safe? (Featured Source)	https://www.wsj.com/articles/since-covid-19-hit-research-on-viruses-has-exploded-is-it-safe-11632496218
September 24, 2021	*NBC News*	A daily pill to treat Covid could be just months away, scientists say. (Featured Source)	https://www.nbcnews.com/health/health-news/daily-pill-treat-covid-could-be-just-months-away-scientists-n1279938
June 17, 2021	*New York Times*	A Pill to Treat Covid-19? The U.S. Is Betting on It. (Featured Source)	https://www.nytimes.com/2021/06/17/health/covid-pill-antiviral.html
July 15, 2021	*Scientific American*	There Are Few Good COVID Antivirals, but That Could Be Changing (Featured Source)	https://www.scientificamerican.com/article/there-are-few-good-covid-antivirals-but-that-could-be-changing/
April 14, 2021	*Nature News*	The race for antiviral drugs to beat COVID — and the next pandemic (Featured Source)	https://www.nature.com/articles/d41586-021-00958-4
March 31, 2021	*New York Times*	Virus Variants Can Infect Mice, Scientists Report (Featured Source)	https://www.nytimes.com/2021/03/31/health/coronavirus-mice-animals.html
March 29, 2021	*The Daily Tarheel*	In the global spotlight: UNC health care experts consider how COVID-19 has shifted research (Featured Source)	https://www.dailytarheel.com/article/2021/03/university-coronavirus-research
March 25, 2021	*Bloomberg Businessweek*	Merck's Little Brown Pill Could Transform the Fight Against Covid (Featured Source)	https://www.bloomberg.com/news/features/2021-03-25/merck-mrk-molnupiravir-pill-could-change-the-fight-against-covid

March 9, 2021	*WINK News*	Pill that treats COVID-19 shows promise in early testing (Featured Source)	https://www.winknews.com/2021/03/08/pill-that-treats-covid-19-shows-promise-in-early-testing/
February 18, 2021	*The Daily Tarheel*	Column: A new COVID-19 antiviral drug? (Featured Source)	https://www.dailytarheel.com/article/2021/02/opinion-covid-antiviral-drug
January 11, 2021	*Nature Biotechnology*	Hunt for improved monoclonals against coronavirus gathers pace (Featured Source)	https://www.nature.com/articles/s41587-020-00791-6
December 14, 2020	*Scientific American*	These Drugs Might Prevent Severe COVID (Featured Source)	https://www.scientificamerican.com/article/these-drugs-might-prevent-severe-covid1/
November 3, 2020	*Daily Tarheel*	UNC lab partnership develops first COVID-19 treatment approved by FDA	https://www.dailytarheel.com/article/2020/11/university-baric-lab-researchers
October 5, 2020	*Scientific American*	Discovery of Hepatitis C Snags Nobel Prize in Medicine (Featured Source)	https://www.scientificamerican.com/article/discovery-of-hepatitis-c-snags-nobel-prize-in-medicine1/
October 1, 2020	*UNC Research*	Carolina's coronavirus lab (Feature of article)	https://www.unc.edu/posts/2020/10/01/carolinas-coronavirus-lab/
September, 8 2020	*Nature News*	The coronavirus is mutating — does it matter? (Featured source)	https://www.nature.com/articles/d41586-020-02544-6
August 4, 2020	*The Atlantic*	The Coronavirus Is Never Going Away (Featured source)	https://www.theatlantic.com/health/archive/2020/08/coronavirus-will-never-go-away/614860/
June 29, 2020	*New and Observer*	It's summer, it's hot and sunny, and COVID-19 didn't go away. Why not? (Featured source)	https://www.newsobserver.com/news/coronavirus/article243827282.html
May 14, 2020	*Pro Publica*	A Trump Official Tried to Fast-Track Funding for His Friend's Unproven COVID-19 "Treatment," Whistleblower Says. (Featured source)	https://www.propublica.org/article/a-trump-official-tried-to-fast-track-funding-for-his-friends-unproven-covid-19-treatment-whistleblower-says
May 13, 2020	*Science Magazine*	Scientists are drowning in COVID-19 papers. Can new tools keep them afloat? (Featured source)	https://www.sciencemag.org/news/2020/05/scientists-are-drowning-covid-19-papers-

			can-new-tools-keep-them-afloat
May 13, 2020	*The Daily Tar Heel*	Here's what you need to know about the FDA-approved COVID-19 drug being tested at UNC (Featured source)	https://www.dailytarheel.com/article/2020/05/remdesivir-0513
May 13, 2020	*Wall Street Journal*	Gilead's Remdesivir Tested With Other Drugs to Fight Covid-19 (Featured source)	https://www.wsj.com/articles/gileads-remdesivir-tested-with-other-drugs-to-fight-covid-19-11589362200
April 30, 2020	*Triangle Biz Journal*	Why UNC stands to gain as Dr. Fauci touts potential coronavirus treatment (Featured source)	https://www.bizjournals.com/triangle/news/2020/04/30/why-unc-stands-to-gain-from-coronavirus-treatment.html
April 29, 2020	*Nature*	Hopes rise for coronavirus drug remdesivir (Featured source)	https://www.nature.com/articles/d41586-020-01295-8
April 17, 2020	*Self Magazine*	What to Know About Chloroquine and Other 'Promising' Coronavirus Treatments (Featured source)	https://www.self.com/story/promising-coronavirus-treatments
April 14, 2020	*The Daily Tar Heel*	UNC researchers collaborate on a potential pill to help treat COVID-19 (Featured source)	https://www.dailytarheel.com/article/2020/04/antiviral-drug-0415
April 14, 2020	*GQ Magazine*	Inside the High Stakes New Life of a Coronavirus Specialist. (**Feature of Article**)	https://www.gq.com/story/a-coronavirus-specialist-and-the-race-for-a-cure
April 13, 2020	*Science Magazine*	Mice, hamsters, ferrets, monkeys. Which lab animals can help defeat the new coronavirus? (Featured source)	https://www.sciencemag.org/news/2020/04/mice-hamsters-ferrets-monkeys-which-lab-animals-can-help-defeat-new-coronavirus
April 8, 2020	*Indy Week*	UNC Researchers Find Oral Pill That Might Block COVID-19 (Featured source)	https://indyweek.com/news/northcarolina/unc-researchers-covid-19-EIDD-2801/
April 6, 2020	*The New Yorker*	The Quest for a Pandemic Pill (Featured source)	https://www.newyorker.com/magazine/2020/04/13/the-quest-for-a-pandemic-pill
April 6, 2020	*The News and Observer*	UNC researchers helped develop a drug to treat COVID-19. Now, it will be tested on humans. (Featured source)	https://www.newsobserver.com/news/local/article241804921.html

March 23, 2020	*The Verge*	Scientists are racing to find the best drugs to treat COVID-19 (Featured source)	https://www.theverge.com/2020/3/23/21188167/coronavirus-treatment-clinical-trials-drugs-remdesivir-chloroquine-covid
March 16, 2020	*STAT News*	As the coronavirus spreads, a drug that once raised the world's hopes is given a second shot (Featured source)	https://www.statnews.com/2020/03/16/remdesivir-surges-ahead-against-coronavirus/
March 15, 2020	*Wall Street Journal*	Regeneron, Sanofi to Test Arthritis Drug as Coronavirus Treatment (Featured source)	https://www.wsj.com/articles/regeneron-and-sanofi-planning-to-study-arthritis-drug-kevzara-as-covid-19-treatment-11583872762
March 10, 2020	*Science News*	Repurposed drugs may help scientists fight the new coronavirus (Featured source)	https://www.sciencenews.org/article/coronavirus-covid19-repurposed-treatments-drugs
March 10, 2020	*NBC News*	Coronavirus is hard on older people — and scientists are not sure why (Featured source)	https://www.nbcnews.com/science/science-news/coronavirus-hard-older-people-scientists-aren-t-sure-why-n1153701
March 10, 2020	*The Guardian (UK)*	Hopes rise over experimental drug's effectiveness against coronavirus (Featured source)	https://www.theguardian.com/world/2020/mar/10/hopes-rise-over-experimental-drugs-effectiveness-against-coronavirus
March 3, 2020	*Pharmacy Today*	Coronavirus: Resources for pharmacists and an interview with a virus expert (Feature Interview)	https://www.pharmacist.com/article/coronavirus-resources-pharmacists-and-interview-virus-expert
February 28, 2020	*Scientific American*	A Promising Antiviral Is Being Tested for the Coronavirus—but Results Are Not Yet Out (Featured source)	https://www.scientificamerican.com/article/a-promising-antiviral-is-being-tested-for-the-coronavirus-but-results-are-not-yet-out/
February 28, 2020	*NBC News*	Where did the new coronavirus come from? Past outbreaks provide hints (Featured source)	https://www.nbcnews.com/science/science-news/where-did-new-coronavirus-come-past-outbreaks-provide-hints-n1144521
February 27, 2020	*South China Morning Post (Hong Kong)*	How Disease X, the epidemic-in-waiting, erupted in China (Featured source)	https://multimedia.scmp.com/infographics/news/china/article/3052721/wuhan-killer/index.html
February 27, 2020	*Endpoints*	A 9/11-era Omaha facility, an old Ebola drug, and the ubiquitous Dr. Fauci:	https://endpts.com/a-9-11-era-omaha-facility-an-old-

		Inside the first US novel coronavirus trial (Featured source)	ebola-drug-and-the-ubiquitous-dr-fauci-inside-the-first-us-novel-coronavirus-trial/
February 21, 2020	*Wall Street Journal*	Sharing Data Faster to Fight an Epidemic (Featured source)	https://www.wsj.com/articles/sharing-data-faster-to-fight-an-epidemic-11582314253
February 19, 2020	*Nature Medicine*	Four ways researchers are responding to the COVID-19 outbreak (Featured source)	https://www.nature.com/articles/d41591-020-00002-4
February 15, 2020	*MIT Technology Review*	Biologists rush to re-create the China coronavirus from its DNA code (Featured source)	https://www.technologyreview.com/2020/02/15/844752/biologists-rush-to-re-create-the-china-coronavirus-from-its-dna-code/
February 3, 2020	*The Telegraph (UK)*	Coronavirus: doctors scramble to find treatments as number of cases continues to climb (Featured source)	https://www.telegraph.co.uk/global-health/climate-and-people/coronavirus-doctors-scramble-find-treatments-number-cases-continues/
January 31, 2020	*The Scientist*	Scientists Zero in on the Novel Coronavirus's Incubation Period (Featured source)	https://www.the-scientist.com/news-opinion/scientists-zero-in-on-the-novel-coronavirus-incubation-period--67045
January 31, 2020	*The Verge*	Universal coronavirus treatments could help treat this outbreak — and the next one (Featured source)	https://www.theverge.com/2020/1/31/21114176/coronavirus-treatments-universal-vaccines-china-outbreak
January 30, 2020	*The Washington Post*	Coronavirus vaccine research is moving at record speed (Featured source)	https://www.washingtonpost.com/health/2020/01/30/coronavirus-treatment-vaccine-cure/
January 28, 2020	*Romper*	Coronavirus Is not Worth Panicking Over in The U.S., But Wash Your Hands (Featured source)	https://www.romper.com/p/coronavirus-isnt-worth-panicking-over-in-the-us-but-wash-your-hands-21745593
January 27, 2020	*Science Magazine*	Can an anti-HIV combination or other existing drugs outwit the new coronavirus? (Featured source)	https://www.sciencemag.org/news/2020/01/can-anti-hiv-combination-or-other-existing-drugs-outwit-new-coronavirus
January 25, 2020	*Bloomberg News*	Scientists Are Already Working on Cures for Coronavirus (Featured source)	https://www.bloomberg.com/opinion/articles/2020-01-25/coronavirus-cures-are-

			already-in-progress-thanks-to-nih-funding
January 23, 2020	*MIT Technology Review*	Virus in Chinese outbreak is closest to one from bats, not snakes (Featured source)	https://www.technologyreview.com/2020/01/23/276097/virus-in-chinese-outbreak-is-closest-to-one-from-bats-not-snakes/
January 22, 2020	*Time Magazine*	The Wuhan Coronavirus Is Spreading Fast. Will Doctors Be Able to Find a Treatment Before the Outbreak Ends? (Featured source)	https://time.com/5768956/wuhan-coronavirus-vaccine-treatment/
January 22, 2020	*The Verge*	Rapid global response to the new coronavirus shows progress made since SARS (Featured source)	https://www.theverge.com/2020/1/22/21077214/coronavirus-rapid-global-response-progress-sars-unknown-virus-china-public-health
January 21, 2020	*Wall Street Journal*	Virus in China Is Part of a Growing Threat (Featured source)	https://www.wsj.com/articles/virus-in-china-is-part-of-a-growing-threat-11578692839
January 8, 2020	*CIDRAP (Center for Infectious Disease and Policy) News*	Virologists weigh in on novel coronavirus in China's outbreak	https://www.cidrap.umn.edu/news-perspective/2020/01/virologists-weigh-novel-coronavirus-chinas-outbreak

Television and Video

September 29, 2021	*CNN International.* Interview with Rosemary Church about the promise of oral antivirals for COVID-19. https://twitter.com/rosemaryCNN/status/1443101628173848579
June 17, 2021	*WRAL TV Live Broadcast.* Talked about the importance of the multibillion dollar allocation of federal funding for antiviral development.
May 1, 2020	*CBS 17 (WNCN).* UNC researcher feels vindicated after FDA allows emergency use of drug to treat COVID-19. https://www.youtube.com/watch?v=oJHo-__QKLY
April 30, 2020	*ABC 11 (WTVD).*Triangle universities participate in promising clinical trial for coronavirus drug.https://abc11.com/science/triangle-universities-participate-in-promising-covid-19-clinical-trial/6141053/
April 24, 2020	*Science Magazine: Coronavirus Investigated: Antivirals.* Short video about antiviral drugs. https://www.youtube.com/watch?v=3220i1GUO3c

March 16, 2020	*UNC In Pursuit.* Coronavirus Drug Shows Promise at UNC. Feature about our work. https://research.unc.edu/2020/03/16/in-pursuit-coronavirus-drug/
March 10, 2020	*WRAL TV Live Broadcast Panel Member "Coronavirus Facts Not Fear" with David Crabtree and Deborah Morgan*
January 28, 2020	*UNC Endeavors.* Fighting Emerging Diseases at UNC. https://endeavors.unc.edu/fighting-emerging-diseases-at-unc/
January 24, 2020	*BBC 1 News Live TV Broadcast.* Answered questions about CODIV19
February 12, 2014	*Self Produced.* Immune Responses and Hepatitis C Virus Permissiveness". *Cell Host and Microbe* 2014; 15 (2): 190-202 https://www.youtube.com/watch?v=zKkoZuPUCM0

Radio and Podcasts

September 30, 2021	*BBC World Service.* Interview with James Coomarasamy about the promise of oral antivirals to treat COVID-19. https://www.bbc.co.uk/sounds/play/p09xc14q
June 21, 2021	*Morning Edition.* NPR (National). Interview with Noel King about what antivirals are and how the U.S. Government is funding pandemic preparedness. https://www.npr.org/2021/06/21/1008656286/u-s-to-pour-billions-into-antiviral-treatments-for-coronavirus-other-viruses
January 19, 2021	*Tested Podcast.* NPR (WUNC). Interview with Dave Dewitt about COVID. https://www.wunc.org/post/showing
December 5, 2020	*Shiny Epi People Podcast with Dr. Lisa Bodnar.* Interview about being a SARS-CoV-2 virologist. https://shinyepipeople.buzzsprout.com/1269377/6600139-timothy-sheahan-phd-on-being-a-sars-cov2-virologist-and-colonizing-mars
August 5, 2020	*WKCBS Radio San Francisco.* Interview related to the potential for COVID-19 to become endemic. https://omny.fm/shows/coronavirus-daily/animals-might-keep-the-virus-going-forever-plus-is
June 12, 2020	*Washington Post. All Told Podcast.* "There's no end in sight to this". Feature of Podcast. https://www.washingtonpost.com/podcasts/all-told/theres-no-end-in-sight-to-this/
March 20, 2020	*Here and Now (NPR, WBUR).* Interview with Jeremy Hobson.https://www.wbur.org/hereandnow/2020/03/20/us-coronavirus-cases-testing
February 7, 2020	*Canadian Broadcasting Company (CBC) Quirks and Quarks with Bob Macdonald.* Human clinical trials in China are already underway to test drugs on infected coronavirus patients. https://www.cbc.ca/radio/quirks/feb-8-coronavirus-treatment-parentese-helps-baby-talk-seals-clap-back-and-more-

	1.5454918/treating-the-coronavirus-improvising-now-but-with-real-hope-on-the-horizon-1.5454940
August 9, 2017	*Radio In Vivo "Your Link to the Triangle Science Community."* Guest on the radio show/podcast with Dr. Amy Sims. https://radioinvivo.org/2017/08/09/coronaviruses-drug/
February 23, 2014	This Week in Virology Podcast. Cell Host and Microbe paper (2014 Feb 12;15(2):190-202) featured on Podcast Episode 174. http://www.twiv.tv/2014/02/23/twiv-273-lambda-is-not-just-a-phage/

Products of Creativity - Performances and Exhibitions

Lead singer and guitar in the rock band "*New Jersey Fairplan*". 50+ performances from 1996-1999 throughout Northeastern, Mid-Atlantic and Midwestern cities including Portland, Portsmouth, Manhattan, Washington DC, Cleveland and Detroit.

Dissertation

Sheahan TP. *SARS Coronavirus Pathogenesis and Therapeutic Treatment Design.* 2008. University of North Carolina at Chapel Hill. Ph.D. Advisor Dr. Ralph S. Baric.

TEACHING RECORD:

Teaching Experience

2021	EPID 799A Guest Lecturer (Dr. Ralph Baric, Class Leader). Coronavirus replication and therapeutics.
2021	Micro 630 Guest Lecturer "Coronavirus Replication and Evolution", "Genetic Analysis of RNA virus" and "Engineering Synthetic Viruses".
2020	University of Maryland at College Park. Dr. Margaret Scull's virology class guest lecture on coronavirus.
2020	EPID 799B Guest Lecturer (Dr. Audrey Pettifor, Class Leader). Coronavirus replication and therapeutics.
2020	EPID 799A Guest Lecturer (Dr. Ralph Baric, Class Leader). Coronavirus replication and therapeutics.
2020	Dr. Steve Matson's Biology Class (UNC-CH). Coronavirus replication and therapeutics.
2020	Micro 630 Guest Lecturer "Coronavirus Replication and Evolution", "Genetic Analysis of RNA virus" and "Engineering Synthetic Viruses".

2020 University of Nicaragua, Leon and UNC Chapel Hill Joint Virology Class led by Sylvia Becker-Dreps. Guest Lecturer on “Antiviral drug development for emerging viruses”

2019 Micro 630 Guest Lecturer “Genetic Analysis of RNA virus” and “Engineering synthetic viruses”

2018 Epid 799a Guest Lecturer “Introduction to Virology” and “Human Genetics in Infectious Disease”

2017 EPID 751 Guest Lecturer “Fundamentals of Virology”, “Emerging Viral Diseases”, “Therapeutics for Emerging Viral Diseases”

2016 EPID 751 Guest Lecturer “Fundamentals of Virology” and “Emerging Viral Diseases”

2006 UNC Department of Microbiology and Immunology, Undergraduate Microbiology laboratory lecturer/instructor. Dr. Loraine Cramer.

2005 UNC Department of Microbiology and Immunology. Teaching assistant for undergraduate Microbiology. Dr. Loraine Cramer.

Mentorship

2015-2021 Mentor to Microbiology Department Graduate Student, Kenneth Dinnon III

2014 GSK. Supervisor of technician Donald Creech on influenza virus in vivo imaging program

2014 GSK. Supervisor of technician Amy Wang on antiviral drug efficacy program

2012-2013 The Rockefeller University. Mentor to Peng Liu a visiting Ph.D. student from Peking University. Graduation May 2015

2011-2012 The Rockefeller University. Supervisor of technician Naoko Imanaka who was integral to the completion of the Cell Host and Microbe paper (2014)

GRANTS:

Current

R21AI146872 (PI: Sims) 06/05/19-05/30/21
NIH $125,000
How MERS-CoV Regulates Innate Immunity in Primary Human Lung Cells

This proposal will build on foundational studies performed in continuous human lung cell lines and define ways that MERS-CoV regulates innate immunity in primary human lung fibroblasts and microvascular endothelial cells.
Role: Subcontract PI
Foreign component funded by grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

U19AI142759 CETR (PI: Whitley) 03/01/14-02/28/24
UAB/NIH/NIAID $375,233
Antiviral Drug Discovery and Development Center
The specific aims of the proposal will identify small molecule inhibitors of CoV fidelity and RNA capping, define their mechanism of action, and determine their efficacy against SARS-CoV and across CoV families using in vivo mouse models of acute and persistent CoV disease.
Role: Investigator
Foreign component funded by grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01 AI131688 (PI: Rice) 03/15/17-02/281/22
Rockefeller/NIH $42,628
Analysis of immunity, viral adaptation and pathogenesis in a new mouse model of HCV-related rodent hepacivirus infection
Mechanisms that contribute to the persistence of hepatotropic viruses, such as HCV, are not well understood. We have recently established the first immune-competent mouse model of an HCV-related virus. With this new model, we propose to systematically study immunity and host-virus interactions during a hepatotropic RNA virus infection in vivo.
Role: Subcontract PI
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01 AI132178 (MPI: Sheahan/Baric) 08/09/17-07/31/22
NIH $919,427
Broad-spectrum antiviral GS-5734 to treat MERS-CoV and related emerging CoV
R01 AI132178-S1 (MPI: Sheahan/Baric) 08/01/20-07/31/21
NIH $458,053
Broad-spectrum antiviral GS-5734 to treat MERS-CoV and related emerging CoV – Administrative Supplement
In partnership with Gilead Sciences, we aim to accelerate the preclinical development of GS-5734 and promote IND licensure. We define the pharmacokinetics, pharmacodynamics, resistance profile, efficacy breadth and mechanism of action of GS-5734 against MERS-CoV and related emerging CoV.
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01AI108197-06 (MPI: Baric/Denison) 03/01/18-02/28/23
Vanderbilt/NIH $189,141
Determinants of Coronavirus Fidelity in Replication and Pathogenesis
To identify common and unique determinants of CoV nsp14-ExoN functions CoV replication, fidelity and IFN sensitivity across CoVs; To determine pathways of adaptation to loss of nsp14-ExoN activity in vitro

and in vivo; and to define mechanisms of ExoN-regulated CoV sensitivity to the innate antiviral immune response.
Role: Co-Investigator
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

RDP-CW432434-UNC-SA (PI: Sheahan) 09/10/20-09/10/21
GlaxoSmithKline (GSK) $91,922
In vitro preclinical assessment of GSK compounds against SARS-CoV2
Evaluate GSK clinical/preclinical compounds for antiviral activity against SARS-CoV2 using advanced (air liquid interface) culture methods
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

Not Assigned (PI: Sheahan) 05/04/20-05/03/21
Viiv Healthcare (GSK) $29,794
Assessment of the potential activity of AZT against SARS-CoV2 in human cell-based in vitro assays
The goal of this collaboration is to further assess the potential activity of AZT against SARS-CoV2 in human cell-based in vitro assays.
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

Not Assigned (PI: Fischer) 06/04/20-08/31/21
Ridgeback Biotherapeutics $147,552
A Phase IIa Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Safety, Tolerability and Efficacy of EIDD-2801 to Eliminate Infectious Virus Detection in Persons with COVID-19
EIDD-2801 is a multicenter study that will be initially limited to and conducted at the University of North Carolina Clinical Trials Unit (CTU) with the addition of a second site (Wake Forest University CTU) based on the local incidence of COVID-19.
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

U01AI149644 (PI: Baric) 04/19/19-03/31/24
NIH $643,087
Respiratory Virus Vaccine and Adjuvant Exploration
Vaccination is one of the most effective public health measures for protecting against infectious disease, and the proposed studies will identify adjuvants and adjuvant combinations that safely elicit long lived protective immunity against emerging pathogens in at risk populations.
Role: Investigator
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01AI110700 (PI: Baric, Li) 09/25/20-08/31/25
NIH $766,414

Cell entry, cross-species transmission and pathogenesis of novel coronavirus from Wuhan
The overall program goals are to identify the viral and host determinants, which regulate the atomic-level interactions between the SARS2 S-glycoprotein and various ACE2 receptor and associated entry components such as cellular proteases.
Foreign component funded by grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

PENDING:
Not Assigned (PI: Sheahan) 04/01/21-03/31/22
Abound Bio, Inc $74,598
Second-generation potent neutralizing antibodies against SARS-CoV2
In vitro and in vivo evaluation of next generation antibodies
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

Not Assigned (PI: Sheahan) 04/01/21-03/31/22
Abound Bio, Inc $74,598
Development of fully-human monoclonal antibodies against emerging coronaviruses
In vitro and in vivo evaluation of next generation antibodies
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01 (PI: Glenn) 07/01/21-06/30/26
Stanford Univ/NIH $125,000
Optimizing potent LNA therapeutics to prevent and treat COVID mono- and co-infections with influenza
To be responsible for performing the experiments involving in vitro and in vivo assessments of the antiviral activity of LNAs provided by the Glenn lab. The viruses to be used include SARS-CoV-2, SARS-CoV, and MERS, including the various isolates routinely run in the Sheahan lab.
Role: Subcontract PI
Foreign component funded by this grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

R01 (PI: DeSimone) 09/01/21-08/31/26
Stanford Univ/NIH $554,557
Microneedle-based Vaccine Development for Rapid Pandemic Response: SARS-CoV-2 Vaccines and Beyond
To evaluate the breadth of immunity and protection induced by the MN-based delivery of SARS-CoV-2 and SARS protein subunit vaccines, using a well-established lethal challenge mouse model, as well as Collaborative Cross mice that resemble the heterogeneity of human genetics and responses to vaccines
Role: Investigator
Foreign component funded by grant: No
There are no Domestic/Foreign gifts, appointments, lab or office space, scientific materials, affiliations, and/or foreign faculty/scholars/scientists/post-docs for this grant.

Past

F32 AI 084448 (PI: Sheahan) 2009-2012
Rockefeller University $150,726
Hepatitis C virus host interactions in micropatterned hepatocyte co-cultures
Role: PI
Score: 116 (scale 100-500, with 100 being a perfect score)
Type: Ruth L. Kirschstein National Research Service Award

SERVICE:

Advisory Boards/Task Forces
Lancet Commission on COVID19: Vaccines and Therapeutics Task Force (Chairs: Dr. Jeffrey Sachs, Dr. Peter Hotez, Dr. Maria Elena Bottazzi)

Editorial Boards

2020 eBiomedicine (Lancet Family Journal) Scientific Advisory Board

Journal Peer Review

2020 Ad Hoc Reviewer for *Nature, Cell Host and Microbe, Heylion, mBio*

2019 Ad Hoc Reviewer for *Viruses, Nature Communication, Journal of Virology, Frontiers in Immunology*

2018 Ad Hoc Reviewer for *Expert Opinion in Drug Discover, Frontiers in Microbiology*

2016-2017 Ad Hoc Reviewer for *Hepatology, mSphere*

2013 Ad Hoc Reviewer for the *Journal of Experimental Medicine, Gastroenterology*

2012 Ad Hoc Reviewer for *Science*

2010-2011 Ad Hoc Reviewer for Proceedings of the National Academy of Science, USA

Grant Study Section Review

2021 National Center for Advancing Translational Sciences (NCATS)
2020 NIAID Virology Special Emphasis Study Section
2020 NIAID COVID-19 Study Section

2019 AAAS Research Competitiveness Program study section assisting Saudi Arabia's Ministry of Education and Research Development Reviewer

2018 NIAID R13 Study Section Reviewer

Committees in Graduate School

2005-2006 UNC Microbiology and Immunology Bassford Memorial Lecture Steering Committee Member. Lecture given by Nobel Laureate Dr. Ralph Steinman.

2005-2006 Graduate Student Representative of UNC Microbiology and Immunology Admissions Committee.

Volunteer

2007-2008 Mentor in Chapel Hill Big Brothers and Big Sisters Program