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Education

- 2015 **Ph.D., Neuroscience**
Washington University, Saint Louis, Missouri
- 2010 **B.S., Behavioral Biology** (*Summa Cum Laude*)
Southern Wesleyan University, Central, South Carolina
- 2010 **B.A., English Language and Literature** (*Summa Cum Laude*)
Southern Wesleyan University, Central, South Carolina

Professional Appointments

- 2019-present **Assistant Professor**
Department of Cell Biology and Neuroscience
Rutgers University, New Brunswick, New Jersey
- 2015-2018 **Postdoctoral Research Fellow**
Department of Immunology
University of Washington, Seattle, Washington

Research Support

Current Support

- 2021-2026 **R01 NS120895** Daniels (PI)
NIH/NINDS
Astrocytic RIPK3 as a driver of protective neuroinflammation during viral encephalitis
Administrative supplements
*2021-2023 Research Supplement to Support Diversity (Supplementee: Juan Angel)
*2022-2023 Research Supplement to Support Diversity (Supplementee: Irving Estevez)
- 2023-2025 **R21 NS130282** Daniels (mPI)
NIH/NINDS
RIPK3-dependent suppression of excitotoxicity during neuronal flavivirus infection

Past Support

- 2021-2024 **R21 MH125034** Daniels (PI)
NIH/NIMH
Maternal ZIKV infection as an environmental risk factor for mental illness
- 2019-2021 **CSCR20ERG003** Daniels (PI)
New Jersey Commission on Spinal Cord Research
Investigating RIPK3 as a driver of inflammatory astrocyte activation in spinal cord injury.
- 2019-2021 **Research Grant** Daniels (PI)
American Parkinson's Disease Association
Title: Investigating astrocytic RIPK3 activation in Parkinson's disease.

2017-2018	F32 AI12954 Ruth L. Kirschstein Postdoctoral NRSA Title: RIP3 mediated restriction of neuropathogenesis during viral encephalitis	Daniels (PI), Oberst (Sponsor)
2014-2015	F31 NS087866 Ruth L. Kirschstein Predoctoral NRSA Title: Interferon regulation of the blood-brain barrier during West Nile encephalitis	Daniels (PI), Klein (Sponsor)
2011-2014	DGE- 1143954 NSF Graduate Research Fellowship Title: Brain endothelial cell polarity and immune trafficking at the blood-brain barrier	Daniels (PI), Klein (Sponsor)
2009	SCICU Undergraduate Research Grant South Carolina Independent Colleges and Universities Title: Hippocampal lesions and spatial memory loss in rats due to latent toxoplasmosis	Daniels (PI), Rouse (Sponsor)

Publications

- Lindman M, Estevez I, Marmut E, DaPrano EM, Chou TW, Newman K, Atkins C, O’Brown NM, and **Daniels BP**. (2025) Astrocytic RIPK3 exerts protective anti-inflammatory activity during viral encephalitis via induction of serpin protease inhibitors. Accepted at *Science Signaling*. Preprint: *BiorXiv*. doi: 10.1101/2024.05.21.595181.
- Iyer H, Benoist C, Bilbo SD, Boulanger LM, Burton M, **Daniels BP**, Deczkowska A, Flajnik MF, Gareau MG, Grace PM, Irazoqui JE, Rosi S, Salinas I, Schaefer A, Sokol CL, Williams DW, and Klein RS. (2025) Systems Neuroimmunology: Current Bottlenecks, Research Priorities, and Future Directions. *Nature Immunology*. 26(3): 325-329. doi: 10.1038/s41590-025-02092-z
- Estevez I, Buckley BD, Panzera N, Lindman M, Chou TW, McCourt M, Vaglio BJ, Atkins C, Firestein BL, and **Daniels BP**. (2025) RIPK3 promotes neuronal survival by suppressing excitatory neurotransmission during CNS viral infection. *Immunity*. 58(3): 666-682.E6. doi: 10.1016/j.immuni.2025.01.017
- Kofman SB, Chu LH, Ames JM, Dayane Chavarria S, Lichauco K, **Daniels BP**, and Oberst A. (2025) RIPK3 coordinates RHIM domain-dependent inflammatory transcription in neurons. *Science Signaling*. 18(880): eado9745. doi: 10.1126/scisignal.ado9745
- Chang NP, DaPrano EM, Lindman M, Estevez I, Chou TW, Evans WR, Nissenbaum M, McCourt M, Alzate D, Atkins C, Kusnecov AW, Huda R, and **Daniels BP**. (2024) Neuronal DAMPs exacerbate neurodegeneration via astrocytic RIPK3 signaling. *JCI Insight*. 9(11): e177002. doi: 10.1172/jci.insight.177002
- Lindman M, Angel JP, Estevez I, Chang NP, Chou TW, McCourt M, Atkins C, and **Daniels BP**. (2023) RIPK3 promotes brain region-specific interferon signaling and restriction of tick-borne flavivirus infection. *PLOS Pathogens*. 19(11): e1011813. doi: 10.1371/journal.ppat.1011813
- Angel JP and **Daniels BP**. (2022) Paradoxical roles for programmed cell death signaling during viral infection of the central nervous system. *Current Opinion in Neurobiology*. 77:102629. doi: 10.1016/j.conb.2022.102629
- Kung PL, Chou TW, Lindman M, Chang NP, Estevez I, Buckley BD, Atkins C, and **Daniels BP**. (2022) Zika virus-induced TNF α signaling dysregulates expression of neurologic genes associated with psychiatric disorders. *Journal of Neuroinflammation*. 19:100. doi: 10.1186/s12974-022-02460-8. PMCID: PMC9036774

- Chou TW*, Chang NP*, Krishnagiri M, Patel AP, Lindman M, Angel JP, Kung PL, Atkins C, and **Daniels BP**. (2021) Fibrillar α -synuclein induces neurotoxic astrocyte activation via RIP kinase signaling and NF- κ B. *Cell Death & Disease*. 12:756. doi:10.1038/s41419-021-04049-0 (*Equal contribution). PMID: PMC8325686
- Xu R, Boreland AJ, Li X, Erickson C, Jin M, Atkins C, Pang Z, **Daniels BP**, and Jiang P. (2021) Developing human pluripotent stem cell-based organoids with a controllable microglia ratio for modeling brain development and pathology. *Stem Cell Reports*. 16:1-15. doi:10.1016/j.stemcr.2021.06.011. PMID: PMC8365109
- Daniels BP** and Oberst A. (2020) Outcomes of RIP kinase signaling during neuroinvasive viral infection. *Current Topics in Microbiology and Immunology*. Springer, Berlin, Heidelberg. doi: 10.1007/82_2020_204 (Book Chapter). PMID: PMC7781604
- Williams JL, Manivasagam S, Smith BC, Sim J, Vollmer LL, **Daniels BP**, Russell JH, and Klein RS. (2020) Astrocyte-T cell crosstalk regulates region-specific neuroinflammation. *Glia*. 2020:1-14. doi:10.1002/glia.23783. PMID: PMC7317491
- Orozco SL, **Daniels BP**, Yatim N, Messmer MN, Quarato G, Snyder AG, Ralli-Jain P, Frase S, Tait SWG, Green DR, Albert ML, and Oberst A. (2019) RIPK3 activation leads to continued cytokine synthesis after loss of cell membrane integrity. *Cell Reports*. 28:2275-2287. doi:10.1016/j.celrep.2019.07.077. PMID: PMC6857709
- Wuertz KM, Treuting PM, Hemann EA, Esser-Nobis K, Snyder AG, Graham JB, **Daniels BP**, Wilkins C, Snyder J, Voss KM, Oberst A, Lund J, and Gale Jr. M. (2019) STING is required for host defense against neuropathological West Nile virus infection. *PLOS Pathogens*. 15(8): e1007899. doi:10.1371/journal.ppat.1007899. PMID: PMC6695101
- Snyder AG, Hubbard NW, Messmer MN, Kofman SB, Hagan CE, Orozco SL, Chiang K, **Daniels BP**, Baker D, and Oberst A. (2019) Intratumoral activation of the necroptotic pathway components RIPK1 and RIPK3 potentiates anti-tumor immunity. *Science Immunology*. 4(36): eaaw2004. doi: 10.1126/sciimmunol.aaw2004. PMID: PMC6831211
- Daniels BP**, Kofman SB, Smith JR, Norris GT, Snyder AG, Kolb JP, Gao X, Locasale JW, Martinez J, Gale Jr. M, Loo YM, and Oberst A. (2019) The nucleotide sensor ZBP1 and kinase RIPK3 induce the enzyme IRG1 to promote an antiviral metabolic state in neurons. *Immunity*. 50:1-13. doi:10.1016/j.immuni.2018.11.017. PMID: PMC6342485
- Daniels BP**, Snyder AG, Olsen TM, Orozco S, Oguin III TH, Tait SWG, Martinez J, Gale Jr. M, Loo YM, and Oberst A. (2017) RIPK3 restricts viral pathogenesis via cell death-independent neuroinflammation. *Cell*. 169:301-313. doi:10.1016/j.cell.2017.03.011. PMID: PMC5405738
- Daniels BP**, Jujjavarapu H, Durrant DM, Williams JL, Green RR, Lazear HM, Gale Jr. M, Diamond MS, and Klein RS. (2017) Regional astrocyte interferon signaling restricts pathogenesis during neurotropic viral infection. *Journal of Clinical Investigation*. 127(3):843-856. doi:10.1172/JCI88720. PMID: PMC5330728
- Gutierrez KD, Davis MA, **Daniels BP**, Olsen TM, Ralli-Jain P, Tait SW, Gale Jr. M, and Oberst A. (2017) MLKL activation triggers NLRP3-mediated processing and release of IL-1 β independent of gasdermin-D. *Journal of Immunology*. 198(5):2156-2164. doi:10.4049/jimmunol.1601757. PMID: PMC5321867
- Pal P, **Daniels BP**, Balaban A, Oskman A, Diamond MS, Sinnis P, Klein RS, and Goldberg DE. (2016) The histidine-rich protein II of *Plasmodium falciparum* triggers an inflammasome-dependent response that compromises blood-brain barrier integrity and promotes cerebral malaria pathogenesis. *mBio*. 7(3):e00617-16. doi:10.1128/mBio.00617-16

- Durrant DM, **Daniels BP**, Pasieka TJ, Dorsey D, and Klein RS. (2015) CCR5 limits cortical viral loads during West Nile virus infection of the central nervous system. *Journal of Neuroinflammation*. 12:233. doi:10.1186/s12974-015-0447-9. PMCID: PMC4678669
- Miner JJ, **Daniels BP**, Shrestha B, Proenca-Modena JL, Lew ED, Lazear HM, Gorman MJ, Lemke G, Klein RS, and Diamond MS. (2015) The TAM receptor tyrosine kinase MERTK protects against neuroinvasive viral infection by maintaining blood-brain barrier integrity. *Nature Medicine*. 21(12):1464-72. doi:10.1038/nm.33974
- Daniels BP** and Klein RS. (2015) Knocking on closed doors: Host interferons dynamically regulate blood-brain barrier function during viral infections of the central nervous system. *PLOS Pathogens*. 11(9):e1005096. doi:10.1371/journal.ppat.1005096 (Review article). PMCID: PMC4574746
- Lazear HM*, **Daniels BP***, Pinto AK, Huang AC, Vick SC, Gale Jr. M, Klein RS, & Diamond MS. (2015) Interferon- λ restricts West Nile virus neuroinvasion by enhancing integrity of the blood-brain barrier. *Science Translational Medicine*. 7(284):284ra59. doi: 10.1126/scitranslmed.aaa4304 (*Equal contribution). PMCID: PMC4435724
- Daniels BP** and Klein RS. (2015) Viral sensing at the blood-brain barrier: new roles for innate immunity at the CNS vasculature. *Clinical Pharmacology and Therapeutics*. 97(4):372-79 (Review article)
- Daniels BP**, Sestito SR, & Rouse ST. (2015) An expanded task battery in the Morris water maze reveals effects of *Toxoplasma gondii* infection on learning and memory in rats. *Parasitology International*. 64(1):5-12. doi:10.1016/j.parint.2014.09.002
- Durrant DM, Williams JL, **Daniels BP**, & Klein RS. (2014) Chemokines regulate inflammation within the central nervous system during infection and disease. *Advances in Medicine*. 2014:806741. doi:10.1155/2014/806741 (Review article). PMCID: PMC4590974
- Durrant DM, **Daniels BP**, & Klein RS. (2014) IL-1R1 signaling regulates CXCL12-mediated T cell localization and fate within the CNS during West Nile virus encephalitis. *Journal of Immunology*. 193(8):4095-4106. doi:10.4049/jimmunol.1401192. PMCID: PMC340598
- Daniels BP**, Holman DW, Cruz-Oregno L, Jujjavarapu H, Durrant DM & Klein RS. (2014) Viral pathogen-associated molecular patterns regulate blood-brain barrier integrity via competing innate cytokine signals. *mBio*. 5(5):e01476-14. doi:10.1128/mBio.01476-14. PMCID: PMC4173776
- Cruz-Oregno L*, **Daniels BP***, Dorsey D, Basak SA, Grajales-Reyes JG, McCandless EE, Piccio L, Schmidt RE, Cross AH, Crosby SD, & Klein RS. (2014) Enhanced sphingosine-1-phosphate receptor 2 expression underlies female CNS autoimmunity susceptibility. *Journal of Clinical Investigation*. 124(6):2571-2584. doi:10.1172/JCI73408 (*Equal contribution). PMCID: PMC4089451
- Williams JL, Patel JR, **Daniels BP**, Klein RS. (2014) Targeting CXCR7/ACKR3 as a therapeutic strategy to promote remyelination in the adult central nervous system. *Journal of Experimental Medicine*. 211(5):791-799. doi:10.1084/jem.20131224. PMCID: PMC4010893
- Daniels BP**, Cruz-Oregno L, Pasieka TJ, Couraud PO, Romero IA, Weksler B, Cooper J, Doering TL, & Klein RS. (2013) Immortalized human cerebral microvascular endothelial cells maintain the properties of primary cells in an *in vitro* model of immune migration across the blood brain barrier. *Journal of Neuroscience Methods*. 212(1):173-179. doi:10.1016/j.jneumeth.2012.10.001. PMCID: PMC3641664

Szretter KJ, Daniels BP, Cho H, Gainey MD, Yokoyama WM, Gale Jr M, Virgin HW, Klein RS, Sen GC, & Diamond MS. (2012) 2'-O methylation of the viral mRNA cap by West Nile virus evades Ifit1-dependent and -independent mechanisms of host restriction in vivo. *PLOS Pathogens*. 8(5): e1002642. doi:10.1371/journal.ppat.1002698. PMCID: PMC3349756

Selected Talks and Conference Presentations

- 2025 **Gordon Research Conference: Neuroimmune Communication in Health and Disease**
Selected Talk, Lucca, Italy
- 2025 **International Society for Neurochemistry Annual Meeting**
Selected symposium proposal and talk, New York, NY
- 2025 **Montclair State University, Sokol Institute for Pharmaceutical Life Sciences**
Invited Talk, Montclair, NJ
- 2024 **University of North Carolina at Charlotte Department of Biological Sciences**
Invited Talk, Charlotte, NC
- 2024 **Rutgers Initiative for Maximizing Student Development (IMSD) Symposium**
Keynote Speaker, New Brunswick, NJ
- 2024 **Pride in Science Symposium, Icahn School of Medicine at Mount Sinai**
Invited Panelist, New York, NY
- 2024 **Cold Spring Harbor Laboratory Banbury Center Meeting: Systems Neuroimmunology – Innovative Strategies, Milestone Objectives, and Research Priorities**
Invited Speaker/Participant, Lloyd Harbor, NY
- 2024 **FASEB Research Conference: Translational Neuroimmunology**
Invited Talk, Niagara, NY
- 2024 **Western Washington University Department of Biology**
Invited Talk, Bellingham, WA
- 2023 **NYU Grossman School of Medicine Virology Institute**
Invited Talk, New York, NY
- 2023 **City College of New York Postdoctoral Retreat**
Keynote Speaker, New York, NY
- 2023 **City University of New York (CUNY) Neuroscience Collaborative**
Invited Talk, New York, NY
- 2023 **American Society for Neurochemistry Annual meeting**
Selected symposium proposal and talk, Lexington, KY
- 2022 **Brain Immunology and Glia (BIG) Center, University of Virginia School of Medicine**
Invited Talk, Charlottesville, VA
- 2022 **FASEB Research Conference: Translational Neuroimmunology**
Invited Talk, Asheville, NC
- 2021 **Rutgers Cell Biology and Neuroscience Society: Student-Invited Speaker**
Invited Talk, New Brunswick, NJ
- 2021 **Pfizer, Inc.: Inflammation and Immunology Research Unit**
Invited Talk, virtual seminar
- 2021 **American Society for Neurochemistry Annual Meeting**
Selected symposium proposal and talk, virtual conference
- 2021 **American Parkinson's Disease Association Virtual Research Roundtable**
Invited speaker and panelist, virtual event
- 2020 **The STEM Village Immunology Seminar Series**
Invited talk, virtual event
- 2020 **National Institutes of Allergy and Infectious Disease, Rocky Mountain Laboratories**
Invited talk (cancelled due to COVID-19), Hamilton, MT
- 2020 **Fox Chase Cancer Center, Research Institute**
Invited talk (cancelled due to COVID-19), Philadelphia, PA
- 2019 **Robert Wood Johnson Medical School, Child Health Institute**
Invited Talk. New Brunswick, NJ.

- 2019 **Lerner Research Institute, Department of Neuroscience**
Invited Talk. The Cleveland Clinic, Cleveland, OH
- 2019 **American Society for Virology Annual Meeting**
Selected Talk. Minneapolis, MN
- 2019 **I3D Symposium: Immune cells at the forefront of health and disease**
Invited talk. Rutgers New Jersey Medical School, Newark, NJ
- 2016 **American Association of Immunologists Annual Meeting**
Selected Talk. Seattle, WA.
- 2010 **South Carolina Academy of Science Annual Meeting**
Selected Talk. Charleston, SC.
- 2010 **South Carolina Independent Colleges and Universities Research Symposium**
Invited Talk. Columbia, SC.
- 2009 **Carolina Undergraduate Social Science Symposium**
Selected Talk. Aiken, SC.

Awards and Honors

- 2025 **Chancellor's Award for Excellence in Teaching Innovations**
Rutgers University, Office of the Chancellor
- 2023 **Chancellor-Provost Award for Excellence in STEM Diversity**
Rutgers University, Office of the Chancellor-Provost
- 2023 **Inclusion, Diversity, Equity, and Advocacy (IDEA) Innovation Grant**
Rutgers University, Division of Diversity, Inclusion, and Community Engagement
- 2019 **Early Career Faculty Travel Award**
American Association of Immunologists
- 2018 **Postdoc Mentoring Award, Finalist**
University of Washington, Seattle, WA
- 2016 **Trainee Abstract Award**
American Association of Immunologists
- 2015 **David M. Kipnis Outstanding Dissertation in the Biomedical Sciences Award**
Washington University School of Medicine, Saint Louis, MO
- 2010 **Honors Program Graduate**
Southern Wesleyan University, Central, SC
- 2010 **Honor Society for Scholars of English**
Sigma Tau Delta
- 2009 **National Honor Society**
Alpha Chi
- 2008-2010 **National Science and Mathematics Access to Retain Talent (SMART) Grant**
U.S. Department of Education
- 2006-2010 **Palmetto Fellowship**
South Carolina Commission on Higher Education

Mentorship and Mentee Honors

- Graduate Students
- 2024-present **Juan Angel:** PhD Student, Neuroscience
Previously: Postbaccalaureate Scholar 2021-2023
National Science Foundation Graduate Research Fellowship (2024-2027)
Carl Storm Fellowship (Gordon Research Conference Travel Award) (2025)
Awardee: Research Supplement to Promote Diversity, NINDS (2021-2023)
- 2023-present **Evan DaPrano:** PhD Student, Neuroscience
FASEB Early Career Research Award (2024)
Selected Talk and Travel Award: FASEB Translational Neuroimmunology (2024)

- 2021-2025 **Irving Estevez:** PhD Student, Neuroscience
 HHMI Gilliam Fellowship (2023-2026)
 Selected Talk and Travel Award: FASEB Translational Neuroimmunology (2024)
 Awardee: Research Supplement to Promote Diversity, NINDS (2022-2023)
 Selected Talk: American Society for Neurochemistry Annual Meeting (2022)
 Selected Talk and Travel Award: American Society for Virology Annual Meeting (2022)
 *Currently: Scientific Associate, VML Health
- 2020-2025 **Tsui-Wen (Tracy) Chou:** PhD Student, Microbiology and Molecular Genetics
 Rutgers Brain Health Institute Trainee Travel Award, Neurodevelopment (2023)
 Selected Talk: American Society for Neurochemistry Annual Meeting (2022)
 Young Investigator Educational Enhancement Award, ASN (2022)
 Selected Talk and Travel Award: American Society for Virology Annual Meeting (2022)
 *Currently: Co-op scientist, Merck & Co.
- 2020-2024 **Marissa Lindman:** PhD Student, Microbiology and Molecular Genetics
 Travel Award: FASEB Translational Neuroimmunology (2022)
 Selected Talk, Travel Award (Trainee Abstract Award): AAI Annual Meeting (2022)
 Selected Talk, Registration Award: American Society for Virology Annual Meeting (2021)
 Selected Talk, Registration Award: FASEB Translational Neuroimmunology (2020)
 *Currently: Postdoctoral Fellow with Margie Ackerman, Dartmouth University
- 2019-2023 **Nydia Chang:** PhD Student, Neuroscience
 Ruth L. Kirschstein Predoctoral NRSA: F31 NS124242 (2022-2023)
 Selected Talk and Travel Award: FASEB Translational Neuroimmunology (2022)
 Travel Award: Cold Spring Harbor Meeting – Glia in Health and Disease (2022)
 Young Investigator Educational Enhancement Award, ASN (2021)
 Keystone Joint Neuroimmunology/Neurodegeneration Registration Award (2021)
 Selectee for AAAS Catalyzing Advocacy in Science and Engineering Workshop (2019)
 *Currently: Postdoctoral Fellow with Mark Albers, Massachusetts General Hospital
- Postbaccalaureate Scholars
- 2023-present **Eduard Marmut**
- Undergraduate Students (selected)
- 2022-2024 **Diego Alzate**
 Department of Cell Biology and Neuroscience Research Excellence Award (2025)
 Louis Stokes Alliance for Minority Participation (LSAMP) Fellowships (2022, 2023)
- 2022-2024 **Micheal McCourt**
 Department of Cell Biology and Neuroscience Research Excellence Award (2024)
 Invited talk: Rutgers Addiction Research Symposium (2023)
 *Currently: PhD Student, Developmental, Stem Cell, and Regenerative Biology Program, University of Pennsylvania
- 2021-2024 **Ben Buckley**
 Henry Rutgers Scholar (School of Arts and Sciences Outstanding Thesis Award) (2024)
 Department of Cell Biology and Neuroscience Research Excellence Award (2024)
 Division of Life Sciences Summer Undergraduate Research Fellowships (2022,2023)
 *Currently: PhD Student, Neuroscience, University of Virginia
- 2020-2023 **Nicholas Panzera**
 Henry Rutgers Scholar (School of Arts and Sciences Outstanding Thesis Award) (2023)
 Department of Cell Biology and Neuroscience Thesis Award (2022)
 Division of Life Sciences Summer Undergraduate Research Fellowships (2021, 2022)
 Selected Talk: American Society for Virology Annual Meeting (2021)
 *Currently: PhD Student, Immunology, University of Washington

- 2019-2022 **Po-Lun Kung**
 Henry Rutgers Scholar (School of Arts and Sciences Outstanding Thesis Award) (2022)
 Department of Cell Biology and Neuroscience Research Excellence Award (2022)
 Selected Talk: American Society for Virology Annual Meeting (2021)
 Division of Life Sciences Summer Undergraduate Research Fellowships (2020, 2021)
*Currently: PhD Student, Developmental, Stem Cell, and Regenerative Biology Program, University of Pennsylvania
- 2019-2021 **Medha Krishnagiri**
 Parkinson's Foundation Summer Student Fellowship (2020)
*Currently: Policy Analyst, NIH/NIAMS Scientific Planning, Policy, and Analysis Branch MPH Student, University of Maryland
- 2019-2021 **Winnie Wong**
 Division of Life Sciences Summer Undergraduate Research Fellowship (2020)
 Aresty Undergraduate Research Fellowship (2019)
*Currently: DDS Student, The University at Buffalo
- 2019-2020 **Aisha Patel**
 Henry Rutgers Scholar (School of Arts and Sciences Outstanding Thesis Award) (2020)
 Department of Cell Biology and Neuroscience Thesis Award (2020)
 Division of Life Sciences Summer Undergraduate Research Fellowship (2019)
*Currently, Physician Assistant Training Program, Touro University Manhattan
- Other Rotation Students, Visiting Students, and Interns
- 2019-present **Graduate Rotation Students**
 -Reem Alatrash (MMG, 2023) -Kimberly Newman (Neuroscience, 2019)
- Undergraduate Interns**
 -Sarah Adams (CBN, 2021-2022) -Rayhan Ahmed (CBN, 2025-present)
 -Nicole Jorge (Biology, 2023-2024) -Srija Indukuri (CBN, 2019-2020)
 -Santiago Botero (Anim. Sci., 2023) -Hahram Kim (Visiting, 2019)
 -Arpan Sheth (BME, 2024-present) -Keya Thakkar (CBN, 2024-present)
 -Emmanuel Worede-Kal (Biology, 2023)

Teaching

Graduate Teaching

- Rutgers University
 2020-present **Current Concepts of Immunology** (Course director, 2020-2022; co-instructor, 2020-present)
 2023 **Minicourse: Programmed Cell Death and Inflammation** (Sole Instructor)
 2021 **Advanced Studies in Neuroscience** (Co-instructor)

Undergraduate Teaching

- Rutgers University
 2024-present **Honors Immunology** (Sole Instructor)
 2020-present **Immunology** (Course director, co-instructor)
 2020-2022 **Laboratory in Immunology** (Co-Instructor)
- Bard College
 2017 **Citizen Science: Science as Storytelling** (Sole Instructor)
- Seattle University
 2016 **Fundamentals of Immunology** (Sole Instructor)

- 2023 **Queer and Allied Scientists at Rutgers (QUASAR) Symposium**
-Co-organizer (with Drs. Troy Roepke and Jim Millonig)
- 2021-2022 **First Year Interest Group Seminar (FIGS), Office of Career Exploration and Success**
Faculty Mentor, Careers in the Sciences (Fall 2021, Fall 2022)
- 2020-2022 **University BSL3 Initiative Committee**
-Member
- 2019-2022 **Admissions Committee, Robert Wood Johnson Medical School MD/PhD Program**
-Member
- University of Washington
- 2016 **Center for Innate Immunity and Immune Disease**
-Education outreach volunteer
- Washington University
- 2013-2015 **Production Team, Medical School Musical**
-Creative director
- 2013-2015 **Future Educators**
-Chairperson
- 2012 **NSF Graduate Student Grant Writing Workshop**
-Student mentor
- 2011-2012 **Neuroscience Student Journal Club**
-Co-coordinator
- 2010-2013 **Young Scientist Program**
-Teaching and community outreach volunteer
- Southern Wesleyan University
- 2009 **Faculty Colloquium Planning Committee**
-Student organizer
- 2008 **Freshman Seminar Common Reader Selection Committee**
-Student representative
- 2008 **Faculty Member of the Year Selection Committee**
-Student representative
- 2008 **First Year Curriculum Caucus**
-Honors student representative
- 2007-2008 **Student Government Association**
-Sophomore Class President

Professional Service

- Grant Review Service
- 2024 **HHMI Gilliam Fellowship Review Panel**
-Finalist Reviewer
- 2024 **Special Emphasis Panel: Mechanisms of Neurotropic Virus-mediated Disease**
-Reviewer: March 2024
- 2023 **Special Emphasis Panel: Glioma, Multiple Sclerosis, and Neuroinflammation**
-Reviewer: November 2023
- 2023 **DOD CDMRP: Focused Program-Infectious Diseases 2 (FP-ID-2) Review Panel**
-Reviewer
- 2022-2023 **Special Emphasis Panel: NIMH COVID-19 Mental Health Research**
-Reviewer: June 2022, February 2023
- 2021-2023 **Center for the Advancement of Science in Space (CASIS)**
-Reviewer

- 2022 **Dutch Research Council/Netherlands Organization for Scientific Research**
-Reviewer
- 2022 **Trish Multiple Sclerosis Research Foundation (Australia)**
-Reviewer
- 2021-2022 **HIV Molecular Virology, Cell Biology and Drug Development (HVCD) Study Section**
-Ad hoc Reviewer: March 2021, November 2021, March 2022
- 2020 **National Science Foundation**
-Reviewer/Panelist
- Conference Service
- 2025 **Symposium Co-Chair:** “Roles for T cell-glia interactions in CNS homeostasis and disease”
-International Society for Neurochemistry Annual Meeting, New York, NY
- 2024 **Session Chair:** “Astrocytes in Neuroinflammation”
Panelist: “Diversity, Equity, and Inclusion in Neuroimmunology”
-FASEB Research Conference: Translational Neuroimmunology, Niagara, NY
- 2023 **Symposium Chair:** “Regulation of neuroinflammation by glial cell death signaling”
-American Society for Neurochemistry Annual Meeting, Lexington, KY
- 2022 **Session Chair:** “Flavivirus III: Pathogenesis”
-American Society for Virology Annual Meeting, Madison, WI
- 2021-2022 **Program Committee Member:** “Glial Mechanisms and Injury”
-American Society for Neurochemistry Annual Meeting, Roanoke, VA
- 2021 **Session Co-Chair:** “Flavivirus III: Pathogenesis”
-American Society for Virology Annual Meeting, Virtual
- 2021 **Symposium Co-Chair:** “Unconventional roles for astrocytes in disease”
-American Society for Neurochemistry Annual Meeting, Virtual
- 2019 **Session Leader:** “Choosing a postdoc to meet my needs”
-American Society for Virology Annual Meeting, Minneapolis, MN

Editorial Service

- 2022-2024 **Managing Guest Editor**
Journal of Neuroimmunology
- 2018-present **Journal Reviewer**
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|------------------------------|-------------------------------|--------------------------------|
| - <i>ACS Infect. Dis.</i> | - <i>J. of Immunol.</i> | - <i>Neurosci Lett</i> |
| - <i>Cell Death and Dis</i> | - <i>J. Neuroinflammation</i> | - <i>Neurotherapeutics</i> |
| - <i>Cell Rep. Med.</i> | - <i>J. of Virol.</i> | - <i>Parasit. Vectors</i> |
| - <i>Clin. Transl. Med.</i> | - <i>mBio</i> | - <i>PLoS Negl. Trop. Dis.</i> |
| - <i>Fluids Barriers CNS</i> | - <i>Mol. Neurobiol.</i> | - <i>PLoS Pathog.</i> |
| - <i>Front. Microbiol.</i> | - <i>Mol. Psychiatry</i> | - <i>Sci. Rep.</i> |
| - <i>Immunity</i> | - <i>Nat. Commun.</i> | - <i>Transl. Neurodegener.</i> |
| - <i>J. Clin. Invest.</i> | - <i>Nat. Med.</i> | - <i>Trends Neurosci.</i> |

Professional Development

- 2023-2024 **Mentorship Development Course**
30 hour, year-long course and workshop series
Howard Hughes Medical Institute, Chevy Chase, MD
- 2022 **Introduction to Online Learning**
Graduate course (2 credits)
University of California, San Diego, CA