FELICIA D. GOODRUM

Professor
603E Borwell Building
Department of Microbiology and Immunology
Geisel School of Medicine
Dartmouth College

EDUCATION

1993-1998 **Wake Forest University School of Medicine**
Ph.D., Molecular Genetics, May 1998
Winston-Salem, North Carolina
Dissertation: *Function of the early region 1B-55kD protein of adenovirus in promoting cell cycle-independent virus replication and mediating mRNA transport.*
Advisor: Dr. David A. Ornelles
Major Fields: Virology, Molecular Biology, Immunology

1988-1992 **Virginia Polytechnic Institute and State University (Virginia Tech)**
B.S., Biology, December 1992
Blacksburg, Virginia

POSTDOCTORAL

1999-2006 **Princeton University**
Princeton, NJ
Postdoctoral Fellow, Department of Molecular Biology
Mentor: Dr. Thomas Shenk

1998-1999 **Wake Forest University School of Medicine**
Winston-Salem, NC
Postdoctoral Fellow, Microbiology and Immunology
Mentor: Dr. David A. Ornelles

ACADEMIC APPOINTMENTS

2025-present **Professor**, **Geisel School of Medicine at Dartmouth,**
Department of Microbiology and Immunology

2019-2025 **Professor**, **University of Arizona**,
Department of Immunobiology, Department of Molecular and Cellular Biology, Department of Cellular and Molecular Medicine
Professor, BIO5 Institute

2013-2019 **Associate Professor, University of Arizona,**
Department of Immunobiology

2006-2013 **Assistant Professor, University of Arizona,**
Department of Immunobiology

INSTITUTIONAL LEADERSHIP

2026- **Director**, Dartmouth International Vaccine Initiative (DIVI)

2022-2025 **Associate Department Head,** Department of Immunobiology, University of Arizona
2017-2019 **Co-Director,** Graduate Program in Molecular Medicine, University of Arizona
2014-2016 **Director,** Graduate Program in Immunobiology, University of Arizona

OTHER PROFESSIONAL APPOINTMENTS

2022-2027 Joint-Editor in Chief, *Journal of Virology*
2021-2022 President, American Society of Virology
2020-2021 President-elect, American Society of Virology
2015-2021 Standing member, National Institutes of Health Virology A Study Section

HONORS and AWARDS

2000-2003 Leukemia and Lymphoma Society, Fellow
2003-2005 Leukemia and Lymphoma Society, Special Fellow
2005-2010 Howard Temin Career Development Award
2008 Junior Faculty International Conference Travel Award, University of Arizona
2008-2011 Young Investigator Award, Human Frontiers in Science
2008-2012 Pew Scholar in Biomedical Sciences
2008 Presidential Early Career Award for Scientists and Engineers (PECASE)
100 scientists/engineers chosen among nominees from 9 federal agencies
2009 Top 20 (out of 1,592) Reviewers for the *Journal of Virology*
2009 Kavli Fellow, National Academy of Sciences
2010 Priscilla A. Schaffer Lectureship, International Herpesvirus Workshop
2012 Top 25 Reviewers for the *Journal of Virology*
2012 Robert Honess Lecturer, American Society for Virology
2013 Wake Forest University Hooding and Awards Convocation, Distinguished Speaker
2014 Jamie McNew Endowed Lecturer, University of Minnesota
2018-2021 Councilor for Animal Viruses, American Society for Virology
2018 Public Voices Fellowship, Women's Foundation of Southern Arizona
2019 American Academy of Microbiology, Elected Fellow
2020-2021 President-elect, American Society for Virology
2020 National Institutes of Health MERIT Award, NIAID
2021-2022 President, American Society for Virology
2022 Edith Sayer Auslander Emerging Visionary, University of Arizona's Commission on the Status of Women
2023-2024 Executive Leadership in Academic Medicine (ELAM), fellow
2023 Woman of Impact Award, University of Arizona
2026 Martin L. Privalsky Memorial Lecturer, University of California-Davis
2026 Wolfgang and Patricia Joklik Distinguished Service Award, American Society for Virology

PROFESSIONAL DEVELOPMENT (since 2010)

2023-2024 **Executive Leadership in Academic Medicine (ELAM) Fellowship**
2022 **Culturally Aware Mentoring Course, National Research Mentoring Network**
2022 The Art of Chalk Talks, Harvard/MIT Broad Institute Systems Virology
2021 Diversity, Equity and Inclusion workshop on considering diversity in recruitment

2021	Diversity, Equity and Inclusion workshop on intrinsic bias
2018	**Public Voices Fellowship, The Op-Ed Project**
2018	Made it Happen: How an Invention Goes from Lab to License Seminar
2018	Workshop on Negotiation
2017	Graduate Enrollment Management Workshop Series (7 sessions)
2017	Write Winning NIH Grant Proposals
2015	Leader of the Pack: Rethinking Leadership Styles for Faculty Leaders
2015	Making your Candidate Statement
2015	Going up for Full Workshop
2015	Publish, not Perish: How to Write Better and Faster Workshop
2013	Publish or Perish Workshop
2010-2011	Learning to Lead, College of Medicine Leadership Program

MAJOR COMMITTEE ASSIGNMENTS and SERVICE

Professional Society Memberships and Elected Offices

Member

2009-	American Society for Virology (**ASV**)
2009-	American Society for Microbiology (**ASM**)
2010-	American Academy for the Advancement of Science (**AAAS**)

Office

2020	President-elect, ASV
2021	President, ASV
2022	Past-president, ASV

Scientific Advisory and Organizing Committees

National/International

2009	Scientific Advisory Committee, 12th International CMV/Betaherpesvirus Workshop
2010	Organizing Committee, 22nd Kavli Frontiers of Science Symposium for the National Academy of Sciences
2010	Pew Scholars in Biomedical Sciences 2011 Annual Meeting Organizing Committee
2010	**NIH Director's Big Think Meeting, Bethesda, MD (invitation from Dr. Francis Collins)**
2011-	Trustee, Priscilla A. Schaffer Foundation
2012-2014	Board of Directors, Brendan B, McGinnis Congenital CMV Foundation
2012	Scientific Advisory Committee, 37th International Herpesvirus Workshop, Alberta Canada
2012	Career Development Discussion Leader, ASV Annual Meeting
2013	Scientific Advisory Committee, 38th International Herpesvirus Workshop, Michigan
2013	Co-Chair, 38th International Herpesvirus Workshop, Session on Virus-Cell Interactions
2014	Scientific Advisory Committee, 39th International Herpesvirus Workshop, Kobe, Japan
2015	Local Organizing Committee, 40th International Herpesvirus Workshop, Boise, Idaho
2015	Organizing Committee, 30th Pew Scholars Reunion
2016	Scientific Advisory Committee, 41st International Herpesvirus Workshop, Madison, WI
2017	Scientific Advisory Committee, 42nd International Herpesvirus Workshop, Ghent, Belgium
2018	**Conference Organizer, 43rd International Herpesvirus Workshop - Vancouver**
2018-2021	**Councilor for Animal Virology, Council of the American Society of Virology (elected)**
2018-2021	Co-Chair, ASV Cares Committee to develop framework and implement access for family and dependent care support at ASV Annual Conferences

2018-2019	Scientific Advisory Committee, 7th International Congenital CMV Conference and 17th International CMV Workshop, Birmingham, AL
2018-2019	Program Advisory Committee, 44th International Herpesvirus Workshop
2019-	External Advisory Board, NIH T32 Virus-host interactions: a multiscale training program, University of California, Irvine
2019-	External Advisory Board Member, Center for viral emergence and host response, University of California, Irvine
2020-2024	Pew Scholars Alumni Review Committee, Biomedical Scholars Program
2019-2021	International Review Committee, 45th International Herpesvirus Workshop
2020	Discussion table leader for trainees (topics: Leading a lab and scientific writing), ASV Annual Conference,
2020-2025	Scientific Advisory Board, Program Project Grant; Herpes Simplex Virus Latency (PIs: David Knipe, David Leib, Donald Coen)
2021	Organizer, American Society of Virology Satellite Session: Shaping the Infected Cell Proteome, 40th Annual Meeting
2021	**Organizer, Vaccine Townhalls, American Society of Virology**
2021-	**External Advisory Board, NIH T32 Immunology and Molecular Pathogenesis, Northwestern University, Chicago, IL**
2021-2022	International Scientific Advisory Committee, 8th International Congenital CMV and 18th International CMV Workshop
2022	Co-organizer, The History and State of DNA Virus Biology Symposium, Princeton University, Long Beach Island, NJ
2022-2023	Chair, Nominations Committee, ASV
2022-2023	Member, DEI Committee, ASV
2022	Invited Speaker, NIH Listen Session: US Gov't Oversight Framework for Research Involving Enhanced Potential Pandemic Pathogens
2023-	Mentor, ASV Mentoring Program
2023-2024	**Chair, Herpesviridae Family Group, Prioritization Advisory Committee, World Health Organization (WHO)-led prioritization of pathogens with pandemic threat**
2023-2024	Organizing Committee Member, *Viruses* 5th International Virology Conference
2025-2029	**Scientific Advisor, NIH T32 Viral Persistence and Pathogenesis, University of Pittsburgh**
2025-	**Steering Committee, International Herpesvirus Workshop**
2025-	**Member, External Research Advisory Board for LSU Health Shreveport**

Study Section Grant Review Service

Nov 2012	National Institute of Health, Infectious Disease and Microbiology Fellowship study section
Mar 2013	National Institute of Health, Topics in Virology and Viral Pathogenesis, Special Emphasis Panel
Jun 2013	National Institute of Health, Virology B, Study Section (mail in)
Jan 2014	American Heart Association, Immunology/Basic Science III Reviewer
Oct 2014	National Institute of Health, Virology A, *Ad hoc* study section
2015-2021	**National Institute of Health, Virology A, Standing Member**

Institutional

University of Arizona

2017	Department Chair Search Committee, Department of Molecular and Cellular Biology
2017	Postdoctoral Task Force, Led by VP Business, Affairs, & Human Resources
2017-2020	Co-organizer, Annual Arizona State Univeristy-University of Arizona joint virology symposium

2019-	University of Arizona Imaging Cores-Life Sciences North Facility, Advisory Committee Member
2020-2023, 2024	Chair, Regents Professor Nominating Committee for Dr.Janko Nikolich-Žugich
2020	Pillar Co-Leader, Collaborative for Global Adaptive Pandemic Solutions (CGAPS): Pandemic Control, Prediction and Preparedness
2021-2023	Appointed Member, Research Innovation and Impact Faculty Foresight Council

College of Medicine/Arizona Health Sciences (since 2010)

2013-2019	Committee of Ten
2015	Dean's Graduate Program Advisory Committee
2015	Faculty Forward Research Committee
2016-2017	Search Committee Member: Division Chief of Gastroenterology, Dept. of Medicine
2017	Search Committee Member: Division Chief of Pulmonary, Allergy, Critical Care and Sleep, Dept. of Medicine
2018	Pilot and Exploratory Core Co-Director for ChiiLi Center (Aging)
2023	Co-Chair, Cellular and Molecular Medicine Department Head Search

Other

2013	Chair, Five-year Review Committee for Department Head, Janko Nikolich-Žugich
2014-2015	Faculty Fellows Mentoring Program, Mentor
2016-2017	Faculty Fellows Mentoring Program, Mentor
2019	Steering Committee, Nikon Center of Excellence
2019-	Advisory Board, Bioinformatics Shared Resource
2022	UAHS Career Development Award Reviewer

Geisel School of Medicine at Dartmouth

09/2025	SYNERGY Pilot letter of intent review panel

University of Arizona Departments: Immunobiology (IMB) or Molecular and Cellular Biology (MCB) (since 2010)

2008-2011	Seminar Series Director (IMB)
2008-2022	Faculty Search Committee (IMB)
2011	Academic Program Review, Self-study and Faculty Committees (IMB)
2020	COVID-19 Committee for Opening Research Laboratories within the Pandemic
2022-2025	Chair, Strategic Recruitment Committee, Immunobiology

Geisel School of Medicine at Dartmouth Department: Microbiology and Immunology

2026	Co-chair, Faculty Search

University of Arizona Graduate Programs: Biochemistry and Molecular Cell Biology (BMCB), Genetics Graduate Interdisciplinary Program (GIDP), or Arizona Biomedical and Biological Sciences (ABBS) (since 2010)

2009-2015	Executive Committee, Genetics Graduate Interdisciplinary Program
2010	Admissions Committee, ABBS
2013-2016	Executive Committee, BMCB Graduate Program

External Reviewer for Promotion and Tenure

2015	Georgia State University
2015	Louisiana State University Health Sciences Center
2015	University of Montana
2016	University of North Carolina at Chapel Hill

2017 University of Rochester
2018 Upstate Medical University
2018 Oregon Health and Science University
2019 Pennsylvania State University
2019 Oregon Health and Science University
2020 Indiana University
2020 University of Kansas
2021 Harvard Medical School
2021 University of Virginia
2021 Louisiana State University Health
2021 University of Nebraska – Lincoln, Nebraska Center for Virology
2021 University of Michigan-Ann Arbor
2021 University of Iowa
2022 University of North Carolina, Chapel Hill
2022 Barnard College
2022 University of Massachusetts, Amherst
2022 Emory University
2023 University of Tennessee
2023 University of Washington, Fred Hutchinson Cancer Research Center
2023 Pennsylvania State University
2023 University of Pennsylvania, Perelman School of Medicine
2023 Louisiana State University Health Sciences
2023 Wake Forest University
2024 University of Plymouth
2024 Mt. Sinai, Ichan School of Medicine
2024 University of North Carolina, Chapel Hill
2024 University of Virginia
2024 Duquesne University
2024 Arizona State University
2024 Emory University
2024 University of Pittsburgh
2024 University of California - Los Angeles
2025 Wistar Institute, University of Pennsylvania
2025 University of Miami
2025 Upstate University-SUNY
2026 University of Miami
2026 University of Virginia
2026 University of Michigan
2026 La Jolla Institute of Immunology
2026 Yale University
2026 University of Montana

INSTITUTIONAL CENTER or PROGRAM AFFILIATIONS

University of Arizona

2006-2025 Member, Arizona Cancer Center
Chaired Pew-Steward Scholar Nominee Committee, 2020 and 2022
2009-2015 Executive Committee Member, Genetics Graduate Interdisciplinary Program

Dartmouth and Geisel School of Medicine
2026 Member, Dartmouth Cancer Center - Signaling, Genomes and Networks

EDITORIAL BOARDS

2008-2019 Editorial Board, *Journal of Virology*
2013-2016 Editorial Board, *Virology*
2014-2019 Associate Editor, *Journal of Virology* Gems
2015-2026 Editor, *mSphere*
2016-2019 Editor, *Virology*
2019-2022 Editor, *Journal of Virology*
2022-2027 **Joint-Editor in Chief**, *Journal of Virology*
2020-2023 Associate Editor, *PLoS Pathogens* Pearls

JOURNAL REFEREE ACTIVITY

2015-present *Nature – 3 manuscript reviews in 2019, 2021, 2021*
Nature Communications – 5 manuscript reviews in 2018, 2021, 2022, 2024, 2025
Nature Microbiology
Science - 1 manuscript review 2024
Cell Reports - 2 manuscript reviews in 2024, 2025
PLoS Pathogens - >10 manuscript reviews
PNAS - 3 manuscript reviews in 2018, 2019, 2022
mBio – 5 manuscript reviews in 2013, 2016, 2018, 2019, 2023
Due to editorial board workload described above, I currently decline ~75% of invitations to referee

ENGAGEMENT, ADVOCACY, COMMUNITY SERVICE and COMMUNITY EDUCATION

National Outreach
2016-2018 Communications Committee Member, American Society for Virology **(ASV)**
06/2020 *The Atlantic* interview: A devastating new stage of the pandemic
07/2020 *USA Today* Interview: COVID-19 impacts scientific research
09/2020 Speaker, What is Scientific Activism?
Columbia University School of Medicine NY, NY
Pediatric Infectious Diseases, Scientific Grand Rounds
10/2020 Speaker, What is Scientific Activism?
University of North Carolina, Chapel-Hill
Department of Microbiology and Immunology
07/2021 Speaker, Communications Workshop- Debunking Disinformation, **ASV**
10/2021 Created and co-Chaired Global Partnerships and Advocacy Committee **(GPAC)**, ASV
05/2022 American Society for Microbiology **(ASM)** Advocacy Training
05/2022 ASM Advocate, Hill Day (1.5 day meeting with offices of US Senators and Representatives to advocate for scientific policy)
05/2022 Speaker, ASM Public Policy and Advocacy Townhall
2022-2023 Member, Diversity, Equity and Inclusion Committee, ASV

01/2023	This Week in Virology (TWiV) with Vincent Racinello: Crouching Virus-Hidden Triggers
03/2023	Panel member, Women's History Month
03/2023	One Health Trust-One Health, One World Podcast with Maggie Fox: The Origins of COVID-19 – What scientific research tells us
03/2023	Progress, Potential and Possibilities Podcast with Ira Pastor: Rational Virology Research for Human Health and Pandemic Prevention
09/2023	*Nature* interview: First global survey reveals who is doing 'gain of function' research on pathogens and why
07/2024	Communications Discussion Host, International Herpesvirus Workshop
07/2026	International Herpesvirus Workshop, Lunch Table host – Advocating for Science
07/2026	NPR Interview: Rand Paul releases Anthony Fauci's pandemic era diary notes
08/2026	POLITIFACT Interview: What the heck is 'gain of function'? Understanding the hubbub behind a scientific research method
12/2026	Let's talk about vaccines- navigating misinformation and tough conversations Workshop leader, Wake Forest University School of Medicine

Regional Outreach

02/2011	Science Fair Judge, Sam Hughes School, Tucson Unified School District
05/2011	"What is a scientist", Sam Hughes School, Tucson Unified School District
01/2012	Scientific Inquiry, Girl Scouts of America, Troop 172
06/2012	Laboratory tour for Jennifer Darlund, Sponsor of Quality Jobs and Education Bill
02/2013	Science Fair Judge, Sam Hughes School, Tucson Unified School District
12/2013	Career Day, St. Michael's Middle School, Tucson, AZ
02/2015	Science Fair Judge, St. Michael's Middle School, Tucson, AZ
03/2015	Science City, Tucson Festival of Books
04/2015	Women in STEM Night at Desert View High School, Tucson, AZ
03/2016	Festival of Books, Immunobiology Booth, Tucson, AZ
11/2016	Spoke with students attending American Indian Youth Conference about research
03/2017	Science Café Speaker at Tucson Festival of Books, Tucson, AZ
04/2017	Panelist, Careers in Translational Research, Southern Arizona Biomedical Research Symposia
06/2017	Hosted research tour and discussion in BIO5 for minority high school students, AmeriSchool-College Prep Academy
11/2019	Arizona Science- Arizona Public Media interview: Trying to understand a virus that infects most of us
06/2020-08/2022	Advisory Committee for re-opening school during COVID-19 pandemic, St. Michaels Day School (30 hours/year)
06/2020-08/2022	Advisory Committee for re-opening school during COVID-19 pandemic, Second Street Children's School (3-4 hours/year)
03/2020	Arizona Daily Star interview: Warmer weather could slow coronavirus, but don't count on it
03/2020	Arizona Daily Star interview: Hundreds of bridge players may have been exposed to coronavirus
03/2020	Arizona 360 interview, Arizona Public Media: Coronavirus in Southern Arizona
03/2020	COVID-19 PPE Drive: UAHS Connect
03/2020	Arizona Department of Health, Creative Think Tank for the University, County and State COVID-19 Responses
04/2020	Arizona Science-Arizona Public Media Interview: How do we emerge from COVID-19 lockdown?
04/2020	Arizona Public Media Public Service Announcements for COVID-19 Handwashing

	Who is at risk?
04/2020	Arizona Public Media interview: ICE Data: Nearly half of detainees tested are positive for COVID-19
05/2020	Arizona 360 Interview, Arizona Public Media: Slowing the spread, businesses reopen, pandemic's economic impact
09/2020	Arizona 360 Interview, Arizona Public Media: Learning about COVID-19: Science, false positives and vigilance
03/2020	COVID-19 Interview for *Reveal* (Public Media): Is 14 days enough?
01/2021	The Buzz Interview, Arizona Public Media: Pima County Expands COVID-19 Vaccine Rollout
02/2021	Vaccine Information Program, Community Food Bank of Southern Arizona
03/2021	The Science Behind Vaccines, Pew Charitable Trusts
03/2021, 9/2021	American Society for Virology, COVID-19 Vaccine Education Town Halls
03/2021	Vaccine Q & A townhall, Tucson Electric Power
03/2021	The Buzz Interview, Arizona Public Media: Reflecting on Arizona's pandemic one year in
03/2021	Arizona 360 Interview, Arizona Public Media: Understanding COVID-19 Variants
12/2021	KOLD Podcast: Conquering COVID-19, Episode 7-Figuring Out Omicron
03/2022	Catalina Foothills School District, student project mentoring
05/2022	Phoenix NPR KJZZ Interview: What can the few who don't get COVID-19 teach us?
05/2022	Arizona Republic Interview; USA Today: There is a good change you have a virus called CMV. It might seem to have no effect- or it might be life-changing.
03/2023	Arizona Daily Star Interview: Evidence does not support COVID lab leak fervor
09/2023	KOLD interview: Are masks making a comeback, Tucson health officials weigh in on possible new CDC guidelines

Institutional - University of Arizona (since 2010)

2010	Career Panelist, Expanding Your Horizons, Women in Science and Engineering (WISE) Program Conference
2017	Speaker at Program for the Advancement of Women Scientists, Department Chemistry and Biochemistry
2017	Postdoctoral Task Force, Led by VP Business, Affairs, & Human Resources
2020	Organizer, Predicting and Responding to Emerging Viruses and Pandemics Symposium
2021	University of Arizona Health Sciences, UA global, COVID-19 Response
2021	**Science Talks Podcast, Episode5**
2021	Panelist, UA Women in Cancer Research Panel, Cancer Research: Present and Future
2023	Panel Member, Inspiring Women in STEM symposium
2023	Research Day, Women in Medicine and Science Panel with Dr. Holly Ingraham

SPONOSORED RESEARCH ACTIVITY

Federal Grants

Active

R37 AI079059 MERIT (PI: Goodrum)	07/01/2008 – 06/30/2029	2.88 calendar
NIH/NIAID		$250,000/yr dc

Mechanisms of Human Cytomegalovirus Latency in Primary Human Hematopoietic Cells

The goals of this grant are to characterize the UL133-UL138 latency/reactivation determinants and define the mechanisms by which they define states of infection.

R01 AI169728 (PI: Goodrum) 02/07/2022-01/31/2027 1.8 calendar
NIH/NIAID $250,000/yr dc
Virus-host interactions regulating innate signaling for human cytomegalovirus latency
The goal of this grant is to define the role of viral determinants important in the establishment of latency in regulating innate responses for latency.

R01 AI177392 (MPI: Goodrum, Bosco) 06/16/2023 – 05/31/2028 2.0 calendar
NIH/NIAID $502,861/yr dc
Host DNA Repair Pathways in Human Cytomegalovirus Replication
Define the mechanisms by which HCMV recruits and modulates specialized host polymerases for viral genome stability in replicative infection and in latency and reactivation.

R01 DK137411 (MPI: Wilson, Goodrum, Thorne, Paek) 04/01/2024 – 03/31/2028 1.2 calendar
NIH/NIDDK $400,000/yr dc
Modulation of colonocyte barrier function and signaling by cytomegalovirus
Define the impact of CMV infection on colonic tight junctions, Erk and YAP signaling, proliferation/differentiation using colonic organoids to better understand the contribution of CMV to gut pathologies, including colitis.

P01 AI127335 (PIs: Nelson, Yurochko, Sub PI: Goodrum) 09/01/2017-08/31/2027 1.8 calendar
NIH/NIAID $175,280/yr dc
Human Cytomegalovirus Dysregulation of Host Hematopoietic Progenitor Cell Signaling Pathways to Modulate Latency, Reactivation and Hematopoiesis During Transplantation
Define host signaling pathways modulated in CD34+ HPCs during infection and determine how these impact viral latency and hematopoiesis.

Pending
R01 GM163050 (MPI: Goodrum, Bosco) 07/01/2026 – 06/30/2031 2.0 calendar
NIH/NIGMS $480,721/yr dc
Mechanisms of Break Induced Replication in Human Cells
We will define mechanisms of break induced replication in human cells using human cytomegalovirus

Past
T32 AG058503 (MPIs: Nikolich-Zugich and Goodrum) 04/01/2019 - 03/31/2028 1 calendar
Infection and Immunity as Drivers of Aging $250,000/yr dc
To train Ph.D. students in the disciplines of infection and immunity to understand mechanisms by which infection and immunity impact the biology of aging

R01 AI131598 (PIs: Goodrum, Sub: Wilson) 03/01/2018 – 03/31/2023 3 calendar
CMV Control of Host Membrane Trafficking $250,000/yr dc
Define host factors and membrane compartments associated with pUL135 and pUL136 while also identifying the mechanisms by which pUL135 and pUL136 control MVB biogenesis, host trafficking and virus replication

R01 AI143191 (MPIs: Goodrum, Moorman, and Kamil) 09/01/2018 – 08/31/2023 2 calendar
Molecular Switch Regulating Human Cytomegalovirus Replicative and Latent States $454,674
To investigate the role of novel promoters in re-initiating immediate early gene expression during reactivation.

R01 AI021640 (PI: Nelson/ Sub PI: Goodrum) 02/01/2013 - 01/31/2023 0.12 calendar

OHSU/sub-NIH $50,000/yr dc
Molecular Aspects of Cytomegalovirus Latency
Analyzing 5 recombinant viruses or shRNAs in the CD34+ hematopoietic progenitor cell models of human cytomegalovirus latency to determine the roles in virus-host interactions identified by parent institution.

R01 AG048021 (PIs: Nikolich-Zugich, Goodrum) 07/15/2014 – 04/30/2019 1.3 calendar
NIH/NAI $62,400/yr dc
Impact of CMV upon T-cell Aging and Immune Defense
Seek to define the cost of persistent CMV on host immune function (and lifespan) in aging and begin to define ways to intervene again the negative effects of CMV in aging.

U19 AI128949 (PIs: Farber, Sub PI: Goodrum) 12/01/2016 – 11/30/2021 0.96 calendar
NIH/NIAID $125,000/yr dc
Control of Anti-viral Immunity in Lymphoid and Mucosal Tissues
Define the state of CMV infection in donor tissues and provide primary human cells infected with CMV to parent institution.

R01 AI083281 (PI: Terhune, Sub PI: Goodrum) 07/01/2017 - 06/30/2021 0.60 calendar
NIH/NIAID $31,785/yr dc
Impact of HCMV proteins on viral replication and cellular signaling pathways
To investigate the importance of UL27 and UL97 in licensing DNA replication during latency and reactivation.

R56 AI105062 (PI: Goodrum) 08/20/13-07/31/15 1.6 calendar
NIH/NIAID $262,454
Antagonistic Viral Determinants Regulating the Outcome of Infection
To prove that pUL135 functions to overcome pUL138-mediated suppression of viral replications; to define the requirement of UL135 in infection and to determine the mechanisms by which it promotes viral replication and reactivation from latency.

K01 CA343111 (PI: Goodrum) 07/01/05 – 606/30/10 3.0 calendar
NIH/NCI $763,018
Human Cytomegalovirus Latency in Hematopoietic Cells
To define viral determinants of latency

R01AI079059 (ARRA Supplement, PI:Goodrum) 2010 - 2011
NIH/NIAID (total dc+idc) $336,454
Mechanisms of Human Cytomegalovirus Latency in Primary Human Hematopoietic Cells
To investigate virus infection and persistence in primary human endothelial cells.

Private/International Foundation Grants
Past
Pew Innovation Award (PIs: Goodrum and tenOever) 12/01/2017-11/28/2019 1 calendar
Pew Program in the Biomedical Sciences $50,000/yr dc
Building a herpesvirus gene function atlas through cell-specific miRNA targeting
To use miRNA technology and BAC recombineering to knockdown essential viral genes in a cell type specific manner.

LIY0172/2008 (PIs: F. Goodrum, M. Nevels and E. Segal) 2008-2012 1.0 calendar
Human Frontiers Science Program Award for Young Investigators $1,050,000
Epigenetic program of Human Cytomegalovirus Pathogenesis

Collaborative project with Dr. Michael Nevels (University of Regensburg, Germany) and Dr. Eran Segal (Weizmann Institute, Israel)

Pew Scholar in Biomedical Sciences (PI: Goodrum) 2008-2012 1.0 calendar
Viral latency and Hematopoietic Cell Function *in vivo* $240,000
To develop a humanized mouse model of human cytomegalovirus latency to test viral determinants of latency.

Flinn Foundation (PIs: Knox, Sullivan, Goodrum) 09/01/13 – 08/30/15 0.06 calendar
Defining the Pulmonary Virome and the Impact of CMV Persistence $100,000
Acquiring and cataloguing clinical BAL samples stratified by infection and clinical status to sequence the background virome using methods developed for ocean viruses.

Intramural Grants
Past
American Cancer Society-Institutional Research Grant (PI: Goodrum) 2007 - 2008
Characterization of a Human Cytomegalovirus Determinant for Viral Latency $20,000

Biology of Aging Pilot Grant, Arizona Center on Aging
(PIs: G. Bosco, K. Knox, F. Goodrum) 2009-2010
Nuclear Dysorganization and Viral Persistence as Coordinated Drivers of Aging in Humans $20,000

PROGRAM DEVELOPMENT

Graduate Program in Molecular Medicine (GPMM): In an initiative to increase critical mass and meet Arizona Board of Regent's matriculation metrics for University of Arizona graduate programs, I designed a program merger between the Graduate Program in Immunobiology and the Graduate Program in Cellular and Molecular Medicine. This required speaking to department and graduate program stakeholders and communicating the need for and benefits associated with the merger, while also acknowledging the challenges and potential pitfalls and designing workable solutions to these. I worked with stakeholders to design a unified curriculum. The Program merger was approved by the Governing Board of Graduate Studies in 2017 and I co-directed this program for two years. I stepped down in 2019 to lead the submission and then direct the T32 training grant discussed below.

Infection and Inflammation as Drivers of Aging (IIDA): The University of Arizona had very few T32 NIH training grants. I developed the IIDA training program and pitched it to multiple program officers at NIH to determine the institute that would be the best fit - we chose to apply to the National Institute for Aging. I then wrote the application, which was successful and co-directed the IIDA program with the department chair of Immunobiology and an expert in aging, Dr. Janko Nikolich. We renewed the training grant in 2023.

Global Partnerships and Advocacy Committee (GPAC) of the American Society for Virology (ASV). I served as ASV President from 2021-2022. One of my initiatives was to develop GPAC with the goal to strengthen the international network of virologists, to empower and support virologists from low-to-middle income countries and to support scientific advocacy, particularly virology. I wrote and was award a grant from the Bill and Melinda Gates foundation that supported the travel for 25 virologists from low-middle income countries to attend the annual ASV conference. This is now in its 5th year. We also wrote OpEds for the public, as well as position pieces for scientists, published in Journal of Virology,

mBio and/or mSphere. These were largely focused on the COVID-19 pandemic, vaccine safety and hesitancy, and the threats to science.

ENTREPRENEURIAL ACTIVITIES

US 11,617,788 B2 Viral Promoters and Compositions and Methods of Use Thereof
Inventors: F. Goodrum, Nathaniel Moorman, Jeremy Kamil

BIBLIOGRAPHY

ORCiD: https://orcid.org/0000-0002-6646-7290
NCBI: https://www.ncbi.nlm.nih.gov/myncbi/felicia%20d.goodrum.1/bibliography/public/

Peer-reviewed Journal Articles

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3. Peppenelli, M.[δ], J. Buehler[δ], and **F. Goodrum**[†]. Human hematopoietic long-term culture (hLTC) for human cytomegalovirus latency and reactivation. In W. Miller, A. Yurochko eds. Methods in Molecular Biology, Human Cytomegaloviruses Totowa: Humana Press; 2021: pp83-101. PMID:33555583

4. **Goodrum, F.**[†] 2022. The complex biology of human cytomegalovirus latency and reactivation. In *Adv.Virus Res.* v112. Aug 1. PMID:35840181

5. **Goodrum, F.**[†], W. Britt, and E. Mocarski. Cytomegaloviruses. In D. M. Knipe, P. M. Howley eds. *Fields Virology*, 7th Ed. Wolters Kluwer, 2022. Chp 12: 389-444.

6. **Goodrum, F**.[†], K. Frueh, S.R. Permar. Cytomegaloviruses. In D. M. Knipe, P. M. Howley eds. *Fields Virology*, 8th Ed. Wolters Kluwer, 2026. Chp 72: *in press.*

Opinion Editorials

1. **Goodrum Sterling, F.** 2018. Science education must reflect reality: we have only 12 years to stop climate change. *The Hill.* Nov 10.

2. Carney, M., **F. Goodrum Sterling**, and R. Gonzalez. 2018. Challenges to health equality go beyond having insurance. *Arizona Daily Star*. Dec 16.

3. **Goodrum Sterling, F**. and H. L. Pottinger. 2019. Everyone has a part to play in ending vaccine hesitancy. *The Health Care Blog*. Feb 12.

4. Pottinger H.L. and **F. Goodrum Sterling**[†]. 2019. Vaccines exemptions create problems for states. *The Hill*. Mar 22.

5. **Goodrum Sterling, F**. 2019. Pressure on high-achieving students can lead to failure. *Arizona Daily Star*. May 12.

6. McCoy, A. and **F. Goodrum Sterling**†. 2019. Climate crisis can't break through noise of trade war and Mueller probe. *The Hill*. May 17.

7. **Goodrum Sterling, F.** 2019. How to create great adults? Childhood. *Arizona Daily Star.* July 31.

8. **Goodrum Sterling, F**. 2019. How do we know what we know? *Scientific American Blogs*. Nov 24.

9. **Goodrum Sterling, F.**† and J. Alwine. 2020. The novel threat of COVID-19. *Arizona Daily Star*. March 13. Editor's Pick.

10. Alwine, J. and **F. Goodrum Sterling**†. 2020. We the people confront COVID-19. *The Hill*. March 15.

11. Alwine, J. and **F. Goodrum Sterling**†. 2020. The COVID-19 surge is coming to Arizona-unless we take steps now. *Arizona Capitol Times*. March 19.

12. Alwine, J. and **F. Goodrum Sterling**†. 2020. Only swift isolation, testing can stem COVID-19 boom in Arizona. *Arizona Daily Star*. March 20.

13. **Goodrum Sterling, F.**† and J. Alwine. 2020. How will we exit the COVID-19 lockdown? *The Hill*. April 14.

14. **Goodrum Sterling, F** † and J. Alwine. 2020. Learning from COVID-19 for the coming pandemics. *The Hill.* April 27.

15. **Goodrum Sterling, F.**† and J. Alwine. 2020. Ducey's stay-home order is working against COVID-19, and rushing to lift it is dangerous. *Arizona Daily Star*. April 30.

16. Alwine, J. and **F. Goodrum Sterling**. 2020. Manipulation of pandemic numbers for politics risks lives. *The Hill*. May 26.

17. Alwine, J. and **F. Goodrum Sterling**. 2020. The potential dangers of a warp speed vaccine. *Medium*. June 12.

18. Alwine, J. and **F. Goodrum Sterling**. 2020. Turn Back the Pandemic. *The Hill*. June 29.

19. Alwine, J. and **F. Goodrum Sterling**. 2020. 'Live with it' is the new GOP response to COVID- but no, we can't do that. *The Hill*. July 12.

20. Goodin, M. and **F. Goodrum Sterling**. 2020. COVID-19: Focus on the science and facts to save many lives. *The Hill*. Sept 1.

21. Alwine, J. and **F. Goodrum Sterling**. 2020. The race to a COVID-19 vaccine requires a pledge for safety and efficacy. *The Hill*. Sept 8.

22. **Goodrum Sterling, F.** and J. Alwine. 2020. Forget politics and take COVID-19 seriously. *The Hill*. Oct 5.

23. Alwine, J. and **F. Goodrum Sterling**. 2020. Trump was saved by science he dismisses. *The Hill*. Oct 14.

24. **Goodrum Sterling, F.** and J. Alwine. 2020. Science seeks truth, Trump denies it. *The Hill*. Oct 24.

25. **Goodrum Sterling, F.** and J. Alwine. 2020. Pfizer COVID-19 announcement: Early victories in a race not yet won. *The Hill*. Nov 9.

26. Alwine, J. and **F. Goodrum Sterling.** 2020. With COVID-19 surging, freedom comes with responsibility. *Arizona Daily Star*. Nov 22. Editor's Pick.

27. Alwine, J. and **F. Goodrum Sterling**. 2020. Personal Freedoms Should Not Trump Public Health During a Pandemic. *The Hill*. Dec 7.

28. Alwine, J., L. Enquist, and **F. Goodrum Sterling**. 2021. Science—restoring the pride of America. *The Hill*. Jan 6.

29. Alwine, J. and **F. Goodrum Sterling**. 2021. Arizonans must be vigilant until vaccines can make a difference. *Arizona Daily Star*. Jan 10.

30. **Goodrum Sterling, F.** and J. Alwine. 2021. The knowns and unknowns of COVID-19 vaccines. *The Hill*. Jan 27.

31. Alwine, J. and **F. Goodrum Sterling**. 2021. Slow vaccine rollout, COVID-19 variants call for increased mitigation measures. *Arizona Daily Star*. Feb 2. Editor's pick.

32. Alwine, J. and **F. Goodrum Sterling**. 2021. The vaccine leads the march to ending the COVID-19 pandemic. *The Hill*. Feb 26.

33. Alwine, J. and **F. Goodrum Sterling**. 2021. How many deaths will it take to rekindle our humanity? *The Hill*. May3.

34. Alwine, J. and **F. Goodrum Sterling**. 2021. The danger of the COVID-19 delta surge beginning in Arizona. *Arizona Daily Star*. Jul 27. Editor's pick.

35. Alwine, J., L. Enquist, and **F. Goodrum Sterling**. 2021. To boost or not to boost-not a simple question. *The Hill*. Sept 7.

36. Alwine, J. and **F. Goodrum Sterling**. 2021. A functional society would protect the most vulnerable from COVID-19. *The Hill*. Sept 16.

37. Alwine, J. and **F. Goodrum Sterling**. 2022. An endemic COVID doesn't mean we stop fighting. *The Hill*. Feb 11.

38. Alwine, J. and **F. Goodrum Sterling**. 2022. The viruses are winning: There's still time to fight back. The Hill. Aug 23.

39. Alwine, J. and **F. Goodrum Sterling**. 2023. Virology is part of the golden age of science: Don't dismantle it. The Hill. Jan 29.

40. Alwine, J. and **F. Goodrum Sterling**. 2023. Halting US virus research would endanger the world. *The Hill*. Aug 15

Published Images

Sam A, **Goodrum F**, Ricciotti R, Knox KS, Sobonya R. Medical image of the week: CMV cytopathic effect. *Southwest J Pulm Crit Care*. 2014;9(6):341-2.

* Indicates work performed as a graduate student or postdoctoral trainee
† Indicates corresponding author is F. Goodrum
δ Indicates mentee/trainee of F. Goodrum

INVITED PRESENTATIONS

International Conferences: Invited/Selected Oral Presentations

07/2006	International Herpesvirus Workshop, Seattle WA (selected talk)
07/2007	International Herpesvirus Workshop, Asheville, NC (selected talk)
07/2008	International Herpesvirus Workshop, Estoril, Portugal (selected talk)
05/2009	12th International CMV/Betaherpesvirus Workshop, Boston, MA (invited talk)
07/2010	Inaugural Priscilla A. Schaffer Lectureship (Plenary lecture) International Herpesvirus Workshop, Salt Lake City, UT
05/2011	Gordon Research Conference on Viruses and Cells (invited lecture) Il Ciocco, Italy
11/2012	14th International CMV/BetaHerpesvirus Workshop (Invited talk/panel) San Francisco, CA
07/2013	38th International Herpesvirus Workshop (selected talk) Grand Rapids, MI
03/2013	4th International Workshop on CMV & Immunosenescence (invited speaker) Parma, Italy
07/2016	41st International Herpesvirus Workshop (selected talk) Madison, WI
11/2016	6th International Workshop on CMV and Immunosenescence (invited lecture and panel discussion leader) Tucson, AZ
05/2017	Gordon Research Conference on Viruses and Cells (invited lecture) Il Ciocco, Italy
07/2017	42nd International Herpesvirus Workshop (Keynote Speaker) Ghent, Belgium
04/2019	7th International Congenital CMV Conference & 17th International CMV Workshop (Keynote Speaker)
07/2021	45th International Herpesvirus Workshop (selected talk), Virtual
06/2022	Gene Expression and Host Response Programming in DNA Virus Infection (Invited speaker), Dubrovnik, Croatia
07/2023	International Herpesvirus Workshop (Keynote Speaker) University of Montana, Missoula
02/2024	*Viruses* 5th International Virology Conference (Invited Speaker) Barcelona, Spain
09/2024	Tsinghua-American Society of Microbiology Symposium, Microbes in Human Health (Invited Speaker) Tsinghua University; Beijing, China
07/2026	International Herpesvirus Workshop (Keynote Speaker) Montreal, Canada

National Conferences

11/2009 21st Annual Kavli Frontiers of Science Symposium, Irvine, CA
National Academy of Sciences (by invitation only)

06/2010 39th Annual Meeting of the American Aging Association, Portland, OR
Inflammation and Aging-Causes and Consequences (invited talk)

07/2010 29th Annual Meeting of the American Society of Virology
Bozeman, MT (selected talk)

11/2010 22nd Annual Kavli Frontiers of Science Symposium, Irvine, CA
National Academy of Sciences (by invitation only)

10/2011 American Society of Microbiology, 2nd Manipulation of Nuclear Processes by DNA Viruses (invited lecture), Santa Fe, NM

07/2012 American Society of Virology, Madison, Wisconsin
The Robert Honess Lecturer (Plenary)

10/2014 14th Annual Symposium in Virology (invited speaker)
Nebraska Center for Virology, University of Nebraska, Lincoln

10/2014 3rd Annual ASM Conference on Viral Manipulation of Nuclear Processes
Washington, DC

07/2015 FASEB Microbial Pathogenesis: Mechanisms of Infectious Disease (invited speaker)
Keystone, CO

06/2016 American Society of Virology (selected talk)
Blacksburg, VA

09/2018 Cytomegalovirus Infection: Advancing Strategies for Prevention and Treatment (invited speaker)
National Institutes of Health, Rockville, MD

04/2020 Minisymposium on Pathogenic Human Viruses (invited speaker)
Duke Center for Virology, Duke University

04/2021 Pathogenic Human Viruses, Duke University (Keynote Speaker)

07/2021 Shaping the Infected Cell Proteome, Satellite Session
American Society of Virology Annual Meeting, Virtual

10/2022 NSF Physics of Living Systems Program, Cancer Convergence Education Network Conference (Invited speaker), University of Vermont Cancer Center, Burlington

06/2023 American Society of Virology (Invited Symposium Speaker)
University of Georgia, Athens

Regional Conferences

10/2026 Northern New England Travel Medicine Symposium
Lake Morey, VT

Invited Seminars/Symposia

08/2007 Oregon Health and Science University, Portland, OR
Vaccine and Gene Therapy Institute

11/2007 University of Nevada, Reno
Department of Cell and Molecular Biology

02/2008 Medical College of Wisconsin, Milwaukee
Department of Microbiology and Molecular Genetics

02/2009 University of California, Irvine (Graduate student invited speaker)
Department of Microbiology and Molecular Genetics

12/2009 Mt. Sinai School of Medicine, New York, NY
Department of Microbiology

09/2010 Southern Illinois University School of Medicine

Medical Microbiology, Immunology and Cell Biology
03/2012 Cleveland Clinic
Department of Molecular Biology
04/2012 Wake Forest University School of Medicine
Department of Microbiology and Immunology
12/2012 Louisiana State University Health Sciences Center, Shreveport
Department of Microbiology and Immunology
02/2013 Washington University in St. Louis, School of Medicine, MO
Department of Pathology and Immunobiology
04/2013 University of North Carolina, Chapel Hill (Post-doctoral Association invited speaker)
Department of Microbiology and Immunology
03/2014 Jamie McNew Endowed Lectureship, University of Minnesota
Amplatz Children's Hospital
05/2014 SUNY Upstate Medical University, Department of Microbiology and Immunology
Graduate student invited speaker
02/2015 University of California, Irvine
Department of Microbiology and Molecular Genetics
04/2015 University of Michigan, Ann Arbor
Department of Microbiology and Immunology
12/2015 Vanderbilt University, Nashville, TN
Pediatric Infectious Disease Research Conference
01/2016 Harvard University, Boston, MA
Harvard, Medical School, Department of Microbiology and Immunology
06/2016 Dartmouth College, Hanover, NH
Geisel School of Medicine, Department of Microbiology and Immunology
07/2016 Northwestern University, Chicago, IL
P01 symposium, M. Abecassis
09/2016 University of Pennsylvania, Perelman School of Medicine
Department of Microbiology
04/2017 University of Illinois at Chicago, College of Medicine
Department of Microbiology and Immunology
04/2017 Pennsylvania State University, College of Medicine
Department of Microbiology and Immunology
11/2017 University of California-Irvine, Department of Microbiology and Molecular Genetics
Center for Virus Research
12/2017 Northwestern University Feinberg School of Medicine, Chicago, IL
Dept. Microbiology and Immunology
03/2018 Wake Forest University School of Medicine, Winston-Salem, NC
Dept. Microbiology and Immunology
04/2018 University of Virginia, Charlottesville, VA
Department of Microbiology, Immunology and Cancer
10/2018 Temple University School of Medicine, Philadelphia, PA
Fels Institute for Cancer Research
11/2018 University of Nevada-Reno
Molecular Biosciences Graduate Student Invited Seminar
11/2018 Wayne State University School of Medicine, Detroit, MI
Department of Biochemistry, Microbiology, and Immunology
12/2018 Arizona State University
BioDesign Institute
02/2019 University of California, Irvine
Department of Microbiology and Molecular Genetics

05/2019	University of Maryland-Baltimore, Baltimore, MD Virology Student-Invited Seminar
09/2019	University of Florida Department of Molecular Genetics and Microbiology
07/2020	Hannover Medical School, Germany Institute of Virology
12/2020	University of Pennsylvania Department of Microbiology, Penn Center for AIDS Research, Penn Genomics Institute, and Penn CHOP Microbiome Program
04/2021	Arizona State University, BioDesign Institute Viroholics Seminar Series
04/2021	University of St Andrews, Scotland Biomedical Sciences Research Complex
05/2021	University of Southern California Herman Ostrow School of Dentistry
06/2021	University of Chicago, IL Microbiology Seminar Series
09/2021	Mt Sinai, Ichan School of Medicine, NY Microbiology and Infectious Disease, Biomedical Sciences
11/2021	Indiana University Biology Department
03/2022	University of Virginia Department of Microbiology, Immunology, and Cancer Biology
04/2022	Tulane University Tulane School of Medicine
06/2022	University of Pittsburgh Department of Pediatrics
09/2022	University of Washington Department of Microbiology
04/2023	University of Pittsburgh Center for Vaccine Research
09/2023	National Institutes of Health, Virology Interest Group
11/2023	Northwestern University Feinberg School of Medicine, Chicago, IL Dept. Microbiology and Immunology
03/2024	University of North Carolina, Chapel Hill Dept. Microbiology and Immunology
05/2024	Tufts University School of Medicine Dept. of Molecular Biology and Microbiology
06/2024	Dartmouth College, Geisel School of Medicine at Dartmouth Molecular and Systems Biology Department
09/2024	The Ohio State University OSU Infectious Disease Institute, Department of Microbial Infection and Immunity
11/2024	Dartmouth College, Geisel School of Medicine at Dartmouth Dept. of Microbiology and Immunology
02/2025	Washington University, Department of Molecular Microbiology St. Louis, MO
04/2025	Auburn University, Department of Biological Sciences Auburn, AL
04/2025	Baruch S. Blumberg Institute, Evrys Bio Doylestown, PA
02/2026	University of California – Davis

Martin Privalsky Memorial Lecture
Department of Microbiology and Molecular Genetics
Davis, CA

03/2026 Johns Hopkins Bloomberg School of Public Health
W. Harry Feinstone Dept. of Molecular Microbiology & Immunology
Baltimore, MD

06/2026 Northwestern University
Immunology and Microbial Sciences T32 Symposium Speaker
Chicago, IL

10/2026 SUNY, Upstate Medical University
Department of Microbiology and Immunology
Syracuse, NY

11/2026 Boston University
Department of Virology, Immunology and Microbiology
Boston, MA

12/2026 Wake Forest University School of Medicine
Department of Microbiology and Immunology
Winston-Salem, NC

02/2027 Medical College of Georgia-Augusta
Cell Biology and Anatomy
Augusta, GA

03/2027 St. Jude Children's Research Hospital
Department of Host-Microbe Interactions (Postdoc invited speaker)
Memphis, TN

04/2027 David E. Wells Memorial Symposium, keynote
University of Alabama in Birmingham
Birmingham, AL

05/2027 Havard Medical School
Microbiology
Boston, MA

Seminars - University of Arizona

08/2006 Biomedical Engineering Program, UA
09/2006 Department of Immunobiology Seminar Series, UA
10/2006 Department of Veterinary Sciences and Microbiology Seminar Series, UA
11/2006 Department of Molecular and Cellular Biology Seminar Series, UA
10/2007 Cancer Biology Interdisciplinary Graduate Program, AZCC, UA
06/2008 Department of Pediatrics, UA
07/2008 Minority Health Disparities Program, UA
03/2009 MicroLunch, Cross Campus Microbiology Focus Group, UA
04/2009 Graduate Interdisciplinary Program in Genetics, UA
03/2010 MicroLunch, Cross Campus Microbiology Focus Group, UA
08/2010 Cellular & Molecular Medicine/ Molecular & Cellular Biology Joint Seminar Series
09/2012 Department of Immunobiology, Seminar Series, UA
02/2013 MicroLunch, Cross Campus Microbiology Focus Group, UA
09/2013 MicroLunch, Cross Campus Microbiology Focus Group, UA
10/2013 Department of Pharmacology and Toxicology
01/2014 College of Medicine-Phoenix, Biomedical Sciences
05/2014 MicroLunch, Cross Campus Microbiology Focus Group, UA
02/2015 MicroLunch, Cross Campus Microbiology Focus Group, UA
04/2016 Cellular & Molecular Medicine/ Molecular & Cellular Biology Joint Seminar Series, UA

10/2018 School of Animal and Comparative Biomedical Science, UA
01/2020 Infectious Disease Grand Rounds, UA
03/2020 Department of Molecular and Cellular Biology, UA
11/2020 Department of Molecular and Cellular Biology, UA
09/2024 Genetics Graduate Interdisciplinary Program, UA
01/2025 Department of Molecular and Cellular Biology, UA
02/2025 Department of Immunobiology, UA

Seminars – Dartmouth College
12/2025 Cancer Signaling, Genomes and Networks, Dartmouth Cancer Center
01/2026 Institute for Biomolecular Targeting (BioMT)
03/2026 Dartmouth Cystic Fibrosis Research Center (DartCF)

TEACHING

Courses – University of Arizona

MED 822 Infection and Immunity Case Base Instruction, AzMed Curriculum, 5-8 students
2007, Facilitator, 51 hours
2008, Facilitator, 51 hours
2010, Facilitator, 2 hours

CBA 596B Seminar in Protein Trafficking
2007 Spring/Fall; ~10 students; 15 hrs/semester
2008 Spring/Fall; ~10 students; 15 hrs/semester
2009 Spring/Fall; ~10 students; 15 hrs/semester
2010 Spring/Fall; ~10 students; 15 hrs/semester
2011 Spring/Fall; ~10 students; 15 hrs/semester
2012 Spring/Fall; ~10 students; 15 hrs/semester
2013 Spring/Fall; ~10 students; 15 hrs/semester
2014 Spring/Fall; ~10 students; 15 hrs/semester
2015 Spring/Fall; ~10 students; 15 hrs/semester
2016 Spring/Fall; ~10 students; 15 hrs/semester
2017 Spring/Fall; ~10 students; 15 hrs/semester
2018 Spring/Fall; ~10 students; 15 hrs/semester
2019 Spring/Fall; ~10 students; 15 hrs/semester

IMB 696A/B Research Seminar Series, **Course Director**
2008 Fall/Spring
2009 Fall/Spring
2010 Fall/Spring

MCB 181 Honors Biology ~25 students
2007 Spring; one 50-minute lecture
2007 Fall; one 50-minute lecture
2013 Fall; one 50-minute lecture

ECOL 409 Evolution of Infectious Disease ~30 students
2008 Fall; 75-minute lecture
2010 Fall; 75-minute lecture

IMB 580 Molecular Virology; Co-director ~8-10 students
2009 Fall; sixteen 90-minute lectures
2011 Spring; sixteen 90-minute lectures

GENE 670 Recent Advances in Genetics
2010 Spring; one 90-minute lecture
2011 Fall; one 45-minute lecture
2014 Spring; one 45-minute lecture

MIC 333 Virology
2012 Spring; 1 90-minute lecture
2014 Spring; 1 90-minute lecture

IMB 502 Microbes and Immunity, **Co-director**
2011 Fall; 14 60-minute lectures and student evaluation
2012 Spring; 9 60-minute lectures and student evaluation
2013 Spring; 7 60-minute lectures and student evaluation

IMB 521 Scientific Writing, **Course Director** ~8-22 students
2013 Fall; 16 120-minute classes
2014 Fall; 16 120-minute classes
2015 Fall; 16 120-minute classes
2016 Fall; 16 120-minute classes
2018 Spring; 16 120-minute classes
2019 Spring; 16 120-minute classes

IMB 564 Advanced Topics: Function, Regulation and Dysregulation Immune System
2010 Spring, 2 90-minute lectures/discussions
2011 Spring, 2 90-minute lectures/discussions
2014 Fall; 2 90-minute lectures/discussions

IMB 565 Principles and Molecular Mechanisms of Microbe-Host Interactions
2014 Spring, 1 45-minute lecture

Courses – Dartmouth College

ENGS 06 Technology and Biosecurity (with Dr. Kendall Hoyt)
Lecture/Discussion on viral emergence

Scholarly Activity Supporting Teaching

2006-Present *Graduate Education and Curriculum Committee, Department of Immunobiology*
Primary Author of *Graduate Student Handbook for the Doctorate of Philosophy in Immunobiology.* In writing this handbook, the Immunobiology Graduate curriculum was rebuilt such that students had a clear outline of required core and elective courses, existing courses with significant overlap were combined and course offerings were restructured to better meet student needs. Further, new required courses were added including a Scientific Writing and Ethics Course to align our Department with NIH recommendations and an Advanced Topics course to help students to integrate diverse concepts within Immunobiology and Infectious Disease Disciplines. Clear guidelines and expectations for Comprehensive/Qualifying

Examination and Doctoral Dissertation were developed and outlined. Document attached.

2009-2012 *Molecular Virology IMB580, Co-Director (3 units)*
I designed and implemented a thematic approach to teaching molecular virology. Virology is historically taught as in the approach of a virus-a-day focusing in taxonomy and details of individual virus families. In this approach, the course focused around large concepts regarding common strategies viruses use to achieve the objective of viral replication, unique or novel attributes of key viruses, and the virus-host interactions that result in pathogenesis. Key primary literature was used to emphasize relevant and current topics in virological research and to bolster students understanding of how questions are approached scientifically.

2010 *Life Science Research Integrity Workshop, Faculty Advisor*
Small Grants in Research Integrity Program sponsored grant written with my graduate student, Lora Grainger

2011- *Microbes and Immunity IMB 502, Co-Director (3 units)*
I worked with Drs. Jeff Frelinger and Magdalene So to introduce students to the disciplines of immunology and bacterial and viral pathogenesis. Lectures were given to provide a foundation for discussing key principles and scientific questions that span the fields of immunology, bacteriology and virology, which are more in depthly explored using primary literature.

2012 *Science Writing Saturdays (3 Saturdays, 9 hours total)*
I developed and taught a writing workshop for student and postdocs that was held over three Saturdays in Fall 2012 to help students develop critical skills for developing specific aims and grant proposals. 25 students attended each of the three Saturday workshops.

2013-present *Scientific Grant Writing, Director (2 units)*
Developed and directed a course to teach graduate students and medical residents the craft and skills of scientific grant writing. The initial course had 9 students (6 graduate students for multiple departments and 3 medical fellows)

2014, 2015 *Professionalism in Science: a workshop for graduate students (3 hours)*
Developed and conducted a workshop to introduce graduate students in IMB, CMM and Genetics to aspects of professionalism in a variety of science and medicine careers. Topics included: developing a CV, Goal setting, professional conduct and presentation, job applications and interviews, and fellowship search engines.

2026 Children's Hospital at Dartmouth Pediatric Residency Didactic Conference
Present a lecture and discussion with Dr. Patrick Passarelli on Congenital CMV.

PRIMARY RESEARCH ADVISING

Undergraduates- University of Arizona (1h weekly one-on-one contact with each undergraduate)
2008 Jason Persichetti, Minority Health Disparities Summer Research Program

2008-2010	Joseph DiVita; Undergraduate Biology Research Program (UBRP)
2008-2011	Louis Cicchini, Molecular and Cellular Biology
2008-2012	Rona Zhou; Molecular and Cellular Biology, UBRP
2010-2012	Sarika Srivastava, Molecular and Cellular Biology, UBRP, Honors Program
2010-2012	Ellen Ouellette, Ecology and Evolutionary Biology, UBRP
2013-2014	Sarah Grimes, Neuroscience
2013-2014	Megan McGuckin, Molecular and Cellular Biology
2014-2015	Benjamin Van Maren, Molecular and Cellular Biology
2015	Breanna Eder, Public Health
2016	Ethan Carpenter, Macalister University summer student
2016	Jacob Cabrejas, Molecular and Cellular Biology
2018-2021	David Tafoya, Microbiology
2018-2019	Shobitha Jillella, Microbiology (Honors Thesis)
2018-2019	Liz Ortega Alolod, Microbiology
2020-2023	Meivan Yang, Biochemistry and Bioinformatics, UBRP
2021-2023	Allison Steedman, Biochemistry
2022-2025	Emily Jamboretz, Molecular and Cellular Biology
2024	Nico Putnam, Undergraduate Research Opportunities Consortium-Minimizing Disparities Program (10-week summer research project)

Graduate Students (2-3 hours weekly contact with each MS or PhD student)

2006-2010	Lora Grainger Ph.D. in Immunobiology, June 2010 Systems Engineer Project Leader Senior, Sandia National Laboratories, International Biological and Chemical Threat Reduction
2006-2011	Alex Petrucelli Ph.D. in Immunobiology, May 2011 Postdoctoral Fellow, University of North Carolina, Chapel Hill in the laboratory of Jenny Ting BioRad, Account Manager
2011-2013	Patricia Zagallo M.S. in Immunobiology, January 2014 Entered Ph.D. program in Science Education University of Washington, STEM Instructor, Office of Minority Affairs and Diversity
2011-2015	Katie Caviness Ph.D. in Genetics, April 2015 ORISE Postdoctoral Fellow, Genomics Institute at USAMRIID in the laboratory of Dr. Gustavo Palacios Associate Principal Investigator, National Biodefense and Countermeasures Center Head of Genomics, National Biodefense and Countermeasures Center, National Bioforensic Analysis Center
2014-2018	Sebastian Zeltzer Ph.D. in Cellular and Molecular Medicine, May 2018 Postdoc, Goodrum Lab Parental break
2012-2018	Michael Rak Ph.D. in Cellular and Molecular Medicine, June 2018 Postdoc, Boston College in the lab of Dr. Emrah Altindis Scientist, Renascent Biosciences Senior Scientist, Carbon Biosciences

2018-2021	Belen Molina, M.S., Graduate Program in Molecular Medicine
2018-2022	Melissa Moy Ph.D. in Cancer Biology, Scientist, Imanis Life Sciences
2019-2023	Kristen Zarrella, Graduate Program in Molecular Medicine, Ph.D. Postdoctoral Fellow, University of Colorado School of Medicine, lab of Dr. Tem Morrison
2020-2024	Pierce Longmire Ph.D. Graduate Program in Molecular Medicine, April 2024 Postdoc, University of Arizona, Goodrum lab Postdoc, University of Pennsylvania, lab of Dr. Matthew Weitzman
2023-present	Emily Cianflone Vaslow, Molecular and Cellular Biology Graduate Program Guarini School of Graduate and Advanced Studies, Dartmouth College
2026-present	Dimitri Koliopoulos, Molecular and Cellular Biology Graduate Program Molecular and Cellular Biology Graduate Program
2026-present	Myana Keusch, Molecular and Cellular Biology Graduate Program Molecular and Cellular Biology Graduate Program

ADVISING and MENTORING

Service on Dissertation Committees, other than as major advisor

Doctorate of Philosophy

University of Arizona

2006-2010	Maurice Jabbour, Department of Immunobiology
2007-2009	James Cherwa, Department of Veterinary Sciences and Microbiology
2009-2011	Maureen Peterson, Genetics Graduate Interdisciplinary Program
2009-2012	Diana Hernandez, Department of Immunobiology
2009-2013	Kristin Renkema, Department of Immunobiology
2011-2013	Andrew Stewart, Genetics Graduate Interdisciplinary Program
2011-2015	Neha Deshpande, Department of Immunobiology
2012-2013	Huy Nguyen, Department of Cellular and Molecular Medicine
2012-2016	Tracey Beyer, Department of Molecular and Cellular Biology
2012-2016	Justyna Gozdz, Department of Cellular and Molecular Medicine
2012-2013	Peyman Aryanpur, Department of Cellular and Molecular Medicine
2013-2015	Ann Gregory, Department of Soil, Water and Environmental Science
2013-2018	Avery DeVries, Department of Cellular and Molecular Medicine
2014-2018	Shraddha Tuladhar, Department of Immunobiology
2014-2016	Matthew Bronniman, Department of Immunobiology
2017-2020	Brittany Forte Ulhorn, Graduate Interdisciplinary Program in Cancer Biology
2017-2023	Emily Merritt, Department of Immunobiology
2018-2021	Yuecheng Xi, Graduate Program in Molecular Medicine
2018-2021	Benjamin Atwell, Graduate Program in Molecular and Cellular Biology
2018-2023	Aaron Byrd, Department of Molecular and Cellular Biology
2019-2023	Christopher Coplen, Graduate Program in Molecular Medicine
2020-2024	Ian Kline, Graduate Program in Molecular Medicine
2021-2024	Samina Momtaz, Graduate Program in Molecular Medicine
2022-2025	Isabelle Toby, Graduate Interdisciplinary Program in Cancer Biology
2025-present	Briana Guzman, Graduate Program in Molecular Medicine

Dartmouth College, Geisel School of Medicine

2025	Paige Canova, Molecular and Cellular Biology (external examiner) (6 h)
2025-	Rachel Dansereau, Molecular and Cellular Biology (12h)
2025-	Dana Joseph, Molecular and Cellular Biology (3h)
2026-	Nisali Mendis, Molecular and Cellular Biology (6h)
2026-	Julia Lockhart, Molecular and Cellular Biology (3h)
2026-	Ahmed Hassan, Molecular and Cellular Biology (10h)

Masters of Science

2006-2007	Savitha Swaminathan, Department of Immunobiology
2006-2009	Vuna Fa, Department of Immunobiology
2016-2017	Kenia Lucey, Pre-medical Admissions Pathway
2018-2019	Elizabeth Dahlmann, Graduate Program in Molecular Medicine
2019-2020	Samina Momtaz, Graduate Program in Molecular Medicine
2023-2024	Joel Thompson, Genetics GIDP

External Reviewer

2012	Donna Collins-McMillen, Doctoral candidate Louisiana State University Health Sciences Center Department of Microbiology and Immunology
2025	Paige Canova, Doctoral candidate Geisel School of Medicine, Dartmouth College Department of Microbiology and Immunology
2026	Shima Moradpour, Doctoral candidate SUNY Upstate Medical University

NIH F31 Fellowship Mentor

2020-2025	Jessica Packard, Duquesne University (5h)

Postdoctoral Fellow Mentor

2009-2014	Mahadevaiah Umashankar, Ph.D.
2013-2019	Jason Buehler, Ph.D.
2016-2024	Donna Collins-McMillen, Ph.D.
2018-2019	Megan Peppenelli, Ph.D.
2018-2021	Sebastian Zeltzer, Ph.D.
2017-2023	Luwanika Mlera, Ph.D.
2023-	Timothy White, Ph.D.
2024-2025	Piece Longmire, Ph.D.
2024-	David McKinzey, Ph.D.
2024-	Mamata Savanagouder, Ph.D.
2026-	Lauren Butterworth, Ph.D.

Faculty Mentor

2009-2012	Dr. Lonnie Lybarger, Cellular and Molecular Medicine, University of Arizona (~5h/yr)
2011-2018	Dr. Sam Campos, Immunobiology, University of Arizona (~5h/yr)
2013-2018	Dr. Joyce Wu, Immunobiology, University of Arizona (~5h/yr)
2014-2015	Faculty Fellows Mentoring Program, Mentor (~10h/yr)
2016-2017	Faculty Fellows Mentoring Program, Mentor (~10h/yr)
2016-2022	Dr. John Purdy, Immunobiology, University of Arizona (~10h/yr)

2017-2022	Dr. Michael Johnson, Immunobiology, University of Arizona (~5h/yr)
2018-2024	Dr. Koenraad Van Doorslaer, Immunobiology, University of Arizona (~5h/yr)
2020-2025	Dr. Justin Wilson, Immunobiology, University of Arizona (~5h/yr)
2023-2025	Dr. Kelvin Pond, Cellular and Molecular Medicine, University of Arizona (~3h/yr)
2025-	Dr. Sladjana Skopelja-Gardener, Microbiology and Immunology, Dartmouth (~10h/yr)
2025-	Dr. Caitlin Kowalski, Microbiology and Immunology, Dartmouth (~6h/yr)
2025-	Dr. Jarrod Smith, Microbiology and Immunology, Dartmouth (~3h/yr)