LAUREN ANCEL MEYERS

Professor — Departments of Integrative Biology, Population Health, and Statistics & Data Sciences Director — <u>UT COVID-19 Modeling</u> Consortium The University of Texas at Austin

BIO

Dr. Meyers is the Cooley Centennial Professor at the University of Texas at Austin, where she was the founding chair of the Department of Statistics and Data Sciences and recently established the <u>UT COVID-19 Modeling</u> Consortium, an NIH- and CDC-funded national center for pandemic modeling. For over 20 years, Dr. Meyers has pioneered the application of data-driven models and machine learning to improve the detection, surveillance, forecasting and control of emerging viral threats. She has built decision-support tools and provided time-sensitive analyses during the SARS, 2009 H1N1, Ebola, and Zika threats for public health and government leaders, including the US Centers for Disease Control and Prevention (CDC), Biomedical Advanced Research and Development Authority (BARDA), Defense Threat Reduction Agency (DTRA), US National Defense Council, and state and local agencies. Dr. Meyers' COVID-19 Modeling Consortium has provided global leadership throughout the pandemic. They maintain multiple COVID-19 forecasting dashboards, have informed COVID-19 surveillance, response, testing and school opening strategies across the US, published dozens of COVID-19 commissioned reports and peer-reviewed articles and created two interactive risk maps to guide outbreak detection and school openings that were featured on the front page of the New York Times. Dr. Meyers was named as one of the top 100 global innovators under age 35 by the MIT Technology Review in 2004 and received the Joseph Lieberman Award for Significant Contributions to Science in 2017.

EDUCATION

1991-1996	Harvard University: B.A., Magna cum laude, Mathematics & Philosophy
1996-2000	Stanford University: Ph.D. in Biological Sciences, Advisor: Marcus W. Feldman

ACADEMIC POSITIONS

2020-	Founding Director, University of Texas at Austin COVID-19 Modeling Consortium
2011-	Professor, Department of Integrative Biology and Department of Statistics & Data Science, UT
2011-2014	Founding Chair, Department of Statistics & Data Science, UT
2007-2011	Associate Professor, Integrative Biology, UT
2008-2010	Associate Director, Division of Statistics and Scientific Computation, UT
2003-2007	Assistant Professor, Integrative Biology, UT
2003-	External Faculty, Santa Fe Institute (SFI), Santa Fe, New Mexico
2000-2002	NSF Postdoctoral Fellow at Emory University (Advisor: Bruce Levin) and SFI

ADVISORY AND BOARD POSITIONS

2022-2028	Member, Board of Overseers, Harvard University
2022-2025	Member, Board of Scientific Counselors, US Centers for Disease Control and Prevention
2020-2022	Co-Chair, University of Texas Strategic Planning Initiative
2011-2017, 2020-	Member, Science Advisory Board, Santa Fe Institute
2021-	Member, Science Advisory Board, Institute for Pure and Applied Mathematics, UCLA
2020-	Member, Austin Area Executive COVID Task Force

AWARDS & FELLOWSHIPS

2018-	Denton A. Cooley Centennial Professorship, UT
2017	Joseph Lieberman Award for Significant Contributions to Science

2011-13, 16-18	William H. and Gladys G. Reeder Faculty Fellow, UT
2006-10, 14-15	Fellow, University of Texas Institute for Molecular and Cellular Biology
2013	Center for Excellence in Education - Excellence and Achievement Award
2010-2011	Donald D. Harrington Faculty Fellowship, UT
2005	College of Natural Sciences Teaching Excellence Award, UT
2004	MIT Technology Review TR100: One of 100 Top Global Innovators Under 35
2000-2002	National Science Foundation Postdoctoral Fellowship in Biological Informatics
2000-2002	Santa Fe Institute Postdoctoral Fellowship
2000	Samuel Karlin Prize for Ph.D Thesis in Mathematical Biology
1999	Steinmetz Fellowship, Santa Fe Institute
1996-1999	National Defense Science & Engineering Graduate Fellowship
1991-1995	U.S. Congressional National Science Scholar

PUBLICATIONS (h-index of 56)

- Fox SJ, Lachmann M, Tec M, Pasco R, Woody S, Du Z, et al. Real-time pandemic surveillance using hospital admissions and mobility data. Proc Natl Acad Sci U S A. 2022;119. doi:10.1073/pnas.2111870119
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- Du Z, Fox SJ, Ingle T, Pignone MP, Meyers LA. Projecting the Combined Health Care Burden of Seasonal Influenza and COVID-19 in the 2020–2021 Season. MDM Policy & Practice. January 2022. doi:10.1177/23814683221084631.
- Hayden FG, Asher J, Cowling BJ, Hurt AC, Ikematsu H, Kuhlbusch K, Lemenuel-Diot A, Du Z, <u>Meyers LA</u>, Piedra PA, Takazono T, Yen HL, Monto AS. Reducing influenza virus transmission: the value of antiviral treatment. *Clin Infect Dis.* 2022 Feb 1;. doi: 10.1093/cid/ciab625. PubMed PMID: 34245250.
- Johnson KE, Woody S, Lachmann M, Fox SJ, Klima J, Hines TS, Meyers LA. Real-Time Projections of SARS-CoV-2 B.1.1.7 Variant in a University Setting, Texas, USA. *Emerg Infect Dis.* 2021;27(12):3188-3190. doi:10.3201/eid2712.210652.
- Yang H, Sürer Ö, Duque D, Morton DP, Singh B, Fox SJ, Pasco R, Pierce K, Rathouz P, Valencia V, Du Z, Pignone M, Escott ME, Adler SI, Johnston SC, Meyers LA. Design of COVID-19 staged alert systems to ensure healthcare capacity with minimal closures. *Nat Commun*. 2021 Jun 18;12(1):3767. doi: 10.1038/s41467-021-23989-x. PubMed PMID: 34145252; PubMed Central PMCID: PMC8213780.
- Perofsky AC, <u>Meyers LA</u>, Abondano LA, Di Fiore A, and Lewis RJ (2021), Social groups constrain the spatiotemporal dynamics of wild sifaka gut microbiomes. *Mol Ecol.* https://doi.org/10.1111/mec.16193.
- Moghadas SM, Sah P, Shoukat A, <u>Meyers LA</u>, Galvani AG. et al. Population Immunity Against COVID-19 in the United States. Annals of Internal Medicine. [Epub ahead of print 14 September 2021]. doi:10.7326/M21-2721.
- Wang X, Du Z, Johnson KE, Pasco RF, Fox SJ, Lachmann M, McLellan JS, Meyers LA. Effects of COVID-19 Vaccination Timing and Risk Prioritization on Mortality Rates, United States. *Emerg Infect Dis*. 2021 Jul;27(7):1976-1979. doi: 10.3201/eid2707.210118. PubMed PMID: 34152963
- Ingle TA, Morrison M, Wang X, Mercer T, Karman V, Fox S, Meyers LA. Projecting COVID-19 isolation bed requirements for people experiencing homelessness. 2021. *PLoS ONE* 16(5): e0251153. doi:10.1371/journal.pone.0251153

- Capobianco R, Kompella V, Ault J, Sharon G, Jong S, Fox S, <u>Meyers LA</u>, Wurman PR, Stone P. Agent-Based Markov Modeling for Improved COVID-19 Mitigation Policies. *J Artif Intell Res*. 2021;71: 953–992.
- Du Z, Pandey A, Bai Y, Fitzpatrick MC, Chinazzi M, Piontti AP, Lachmann M, Vespignani A, Cowling BJ, Galvani AP, Meyers LA. Comparative cost-effectiveness of SARS-CoV-2 testing strategies: A modelling study. 2021. Lancet Public Health. https://doi.org/10.1016/S2468-2667(21)00002-5
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- Stockmaier S, Stroeymeyt N, Shattuck EC, Hawley DM, <u>Meyers, LA</u>, Bolnick DI. Infectious diseases and social distancing in nature. *Science*. 2021; 371(6533):eabc8881. DOI: 10.1126/science.abc8881
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- Gillespie DL, Meyers LA, Lachmann M, Redd SC, Zenilman JM. The Experience of 2 Independent Schools With In-Person Learning During the COVID-19 Pandemic. *Journal of School Health*. 2021; 91(5):347-355. https://doi.org/10.1111/josh.13008
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- Wang X, Du Z, Huang G, Pasco RF, Fox SJ, Galvani AP, Pignone M, Johnston SC, Meyers LA. Effects of cocooning on coronavirus disease rates after relaxing social distancing. *Emerging Infectious Diseases*. 2020; 26(12). DOI: 10.3201/eid2612.201930
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- Hoen, A.G., T.J. Hladish, R.M. Eggo, M. Lenczner, J.S. Brownstein, <u>L.A. Meyers</u> (2015) Epidemic Wave Dynamics Attributable to Urban Community Structure: A Theoretical Characterization of Disease Transmission in a Large Network. *J Med Internet Res* 17(7):e169.
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- Durham, D.P., M.L. Ndeffo Mbah, J. Medlock, P.M. Luz, <u>L.A. Meyers</u>, A.D. Paltiel, A.P. Galvani, A.P. (2013) Dengue dynamics and vaccine cost-effectiveness in Brazil. Vaccine 37: 3957-61. PMID: 23791696.
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¹ Awarded Lord Robert May Best Paper Prize for articles published in *Journal of Biological Dynamics* from 2009 to 2011.

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- <u>Meyers, L.A.</u> and W. Fontana (2005) Evolutionary lock-in and the origin of modularity in RNA structure, in "Modularity Understanding the Development and Evolution of Complex Natural Systems" (W. Callebaut and D. Rasskin-Gutman, Eds.), MIT Press.
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² First two authors contributed equally.

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RESEARCH SUPPORT

CURRENT SUPPORT

- NSF, 2200169, PIPP Phase I: Center for Pandemic Decision Science Developing Robust Paradigms for Anticipating and Mitigating Uncertain Pathogen Threats, 9/22-2/24 (PI)
- NSF, 2230125, RAISE: IHBEM: Integrating Traditional Survey and Digital Sociobehavioral Data into Infectious Disease Models for Long-Term Forecasting (Co-PI)
- CDC, 75D30122C14776, Support translation and operational science and technology advanced to improve CDC's use of forecasting, modeling and analytical approaches to inform public health policy development, 8/22-8/23 (PI)
- CDC, 75D30122C15411, Estimating the effects of COVID-19 non-pharmaceutical interventions on the burden of influenza in the United States, 9/22-9/26 (PI)
- CSTE/CDC, NU38OT000297, Development of forecasts and/or scenario projections for influenza to inform public health decision-making, 10/22-7/23 (co-PI)
- DSHS, SARS-CoV-2 Variant Network Sampling Strategy and Modeling, 9/21-5/23 (PI)
- CSTE/CDC, NU38OT000297, A multi-scale, mechanistic model of COVID-19 healthcare usage in the US for behavior-driven forecasting and the evaluation of layered intervention strategies, 11/21-1/23 (PI)
- CSTE/CDC, NU38OT000297, Forecasting influenza hospitalizations with multi-scale curve fitting a flexible framework integrating healthcare capacity and behavioral change, 11/21-10/22 (PI)

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³ Papers published prior to 2012 are under maiden name, Lauren W. Ancel

- CDC U01IP00136, Modeling toolkit to evaluate multifaceted control strategies for seasonal and pandemic influenza, 9/20-8/25 (PI); COVID-19 Supplement, 8/20-7/23
- NIH, R01AI151176, Accelerating viral outbreak detection in US cities using mechanistic models, machine learning and geospatial data, 2/20-1/25 (PI, Multi-PI with A. Galvani); COVID-19 Supplement, 7/20-1/23 NIGMS-NIH, 1U24GM132013: MIDAS Coordinating Center (Co-PI)

PRIOR SUPPORT

- NSF, S000647, US-UK Collab: Adaptive surveillance and control for the elimination of endemic disease, 9/20-6/22 (Co-PI, Primary PI-Ferrari)
- UTMB/CDC U01CK000512, Western Gulf Center of Excellence for Vector-borne Diseases, 12/16-12/21 (Co-PI, Primary PI-Weaver)
- Rockefeller Foundation, COVID-19 Healthcare Projection Dashboard to Inform Local Decision-Making throughout the US, 3/20-1/22 (PI)
- Rockefeller Foundation, UT Austin Vaccines Planning Tool for COVID-19 Modeling Accelerator (CMA), 3/20-1/22 (PI)
- NIH T32, BD2K: Training program for inference on complex biological data, 6/16-5/21, (PI)
- Rockefeller Foundation/Johns Hopkins University: Coupling COVID-19 Social Distancing with Influenza Vaccination to Manage Healthcare Surges, 7/20-12/20 (PI)
- Center Grant--BEACON: An NSF Science and Technology Center for the Study of Evolution in Action. 8/10-7/21 (Consortium of universities led by Michigan State University. Meyers is one of five co-PI's at UT.)
- NIH, U01GM087719-01, Dynamic data-driven decision models for infectious disease control, 8/14-4/20 (PI, Multi-PI with A. Galvani)
- Texas Department of State Health Services (DSHS), Evaluation of Texas DSHS Vaccine Coverage Surveys, 1/18-6/19 (PI)
- Defense Threat Reduction Agency, Surety BioEvent App: BioEvent Surveillance, Detection and Prediction Leveraging Trusted NextGen Data Sources, 5/14-4/17 (Co-PI)
- NIH MIDAS, U01GM087719-01, Impacts of Individual and Social Behavior on Influenza Dynamics and Control. 5/09-4/15 (PI, Multi-PI with A. Galvani)
- Center for Disease Control and Prevention (CDC) and Association of Public Health Labs (APHL), Evaluating and Optimizing the National Laboratory-Based Surveillance, 1/15-6/15 (PI)
- Texas Department of State Health Services (DSHS), Arbovirus Surveillance and Control: Optimizing the detection and mitigation of West Nile Virus, Dengue Fever, and Chikungunya outbreaks, 1/15-6/15 (PI)
- Center for Disease Control and Prevention (CDC) and Association of Public Health Labs (APHL), Evaluating and Optimizing the National Laboratory-Based Surveillance, 10/13-6/14 (PI)
- Texas Department of State Health Services (DSHS), Decision-support tool for Pandemic Influenza Allocation of Antiviral Stockpile, 11/13-6/14 (PI)
- Center for Disease Control and Prevention (CDC) and Association of Public Health Labs (APHL), Evaluating and Optimizing the National Laboratory-Based Surveillance, 10/12-9/13 (PI)
- NSF, DEB-0749097, The Spread and Evolution of Parasites on Host Networks, 9/08-8/13 (PI)
- Texas Department of State Health Services (DSHS), Pandemic Flu Decision-Support Toolkit for the State of Texas, 9/12-8/13 (PI)
- NIH, 1R21DA024611-01A, Combining empirical and theoretical network approaches to HIV transmission, 6/09-5/12 (Co-I)

- James S. McDonnell Foundation Research Award, The Evolutionary and Epidemiological Potential of Pathogens. 01/07-1/11 (PI)
- Texas Department of State Health Services (DSHS), Quantitative Tools for Pandemic Flu Forecasting and Control, 4/11-7/11 (PI)
- Texas Department of State Health Services (DSHS), Assessment of Texas Influenza Surveillance Program, 8/09-7/10 (PI)
- NSF, SES-0940071, COLLABORATIVE RESEARCH: Dynamic Risk Perceptions about Mexican Swine Flu, 7/09-6/10 (PI)
- Canadian Institutes of Health Research (CIHR), Evaluation of Ontario's Influenza Immunization Program, 01/07-12/09 (Co-I)
- Bill and Stephanie Sick Research Award, Quantitative Prediction and Control of Epidemics, 09/07-12/09 (PI)
- Canadian Institutes of Health Research (CIHR), Mathematical modeling of pandemic influenza, 09/06-08/09 (Co-I)
- NSF, DEB-0445351, Evolution, Conflict and Cooperation in Mixed-species Bacterial Communities, 3/05-2/09 (PI)
- NSF, ITR Collaborative Research: Building the Tree of Life A National Resource for Phyloinformatics and Computational Phylogenetics, 9/03-8/08 (Co-PI)
- Canadian Institutes of Health Research (CIHR), Public Health Preparedness for the Vancouver 2010 Olympic Games, 4/06-3/07 (Co-I)
- Canadian Institutes of Health Research (CIHR), The spread and evolution of SARS coronaviruses through contact networks, 7/04-12/05 (Co-PI)
- NSF, DEB-0303636, Evolving better biofilms: The dynamics of community-level natural selection in bacteria, 2/03-1/04 (PI)
- Canadian Institutes of Health Research (CIHR), SARS: A Scientific Collaborative to Support Public Health Response through Vaccination, 5/03-3/04 (Co-I)

INTERVIEWS AND MEDIA COVERAGE OF RESEARCH

- Extensive coverage of COVID-19 research, including CNN, MSNBC, BBC, NPR, Economist, New York Times, Wall Street Journal, Washington Post, New Yorker, USA Today, Wired, Politico, Reuters, Associated Press, Huffington Post, STAT, FiveThirtyEight, The Atlantic, MoneyBall podcast
 - As of September 2022, mentioned in over 16,000 independent news clips that have received more than 29.8 billion unduplicated visitors.
 - One of UT's most cited experts since February 2020, and #1 most cited expert at UT in February 2020 through November 2020, and March 2021

Coverage of PLoS Computational Biology paper on influenza forecasting: The Now TV, KXAN, KLBJ

Coverage of PLoS Computational Biology paper on pandemic emergence: New York Times, NPR (2017)

Coverage of *BMC Infectious Diseases* paper on Zika risk assessment: Austin American Statesman, Texas Standard, CBS Austin, Science Daily (2017)

Coverage of PNAS paper on common cold and asthma: Austin American Statesman, Medical Express, Healio, TheDoctorWillSeeYouNow.com, Fox TV Florida (2016-2017)

Interviewed by CDC's Beyond the Data (2016)

Interview regarding measles outbreaks and vaccination: Wall Street Journal (2015)

Radio interview on pandemic influenza containment strategies: KUT (2015)

Podcast on 2015 West African Ebola epidemic: Huffington Post (2015)

Coverage of 2014-2015 Ebola research: NBC News, Washington Post, Huffington Post, Reuters, Yahoo, BBC, Guardian, Daily Mail, KVUE (2014-15)

Interview regarding disease outbreaks in Texas immigrant populations: KVUE (2014)

Interviews regarding Texas Pandemic Flu Toolkit (flu.tacc.utexas.edu): Fox 7 Good Day Austin, KEYE morning news, Vaccine News Daily, The Alcade, UT Banner (2012)

Interviews relating to H1N1 (swine) flu pandemic: Austin American Statesman, Dallas Morning News, KVUE evening news, KEYE evening news, KXAN morning news, Daily Texan, Santa Fe New Mexican (2009-2010)

Research featured in Slate.com (February 2009)

Radio interview, She blinded me with science, KVRX Austin (April 2008)

Interviewed for LA Times article, To protect us all, vaccinate school kids (November 2006)

Research featured in Wall Street Journal article, *If We Must Ration Vaccines for a Flu, Who Calls the Shots?* (October 2006)

Article describing ESI outreach lecture in The Daily Texan (April 2006)

Epidemiology research featured in Austin American Statesman, *Professor uses a new math to predict disease spread*, Front page of metro section (April 2006)

Paper on Genetic Potential (PLoS Computational Biology, 2005) receives coverage by EurekAlert.com (AAAS), Iran Daily, BrightSurf.com (August 2005)

Research featured in Newsweek, MIT Technology Review, Technology Review 100, Austin American Statesman, National Review of Medicine, Die Zeit (2004)

Television interview by Dan Robertson on KXAN 36 News (November 2003)

Research featured in UT banner article, Predicting the Path of Infectious Diseases (October 2003)

Paper on Baldwin Effect (JTB, 1999) featured by Kevin Laland in *Nature* book review as "the best theoretical analysis of the Baldwin Effect" (September 2003)

Research featured on NPR The World, BBC Five Live, WIRED (2003)

INVITED PRESENTATIONS

Panelist, International Conference on Emerging Infectious Diseases (ICEID) (2022)

Keynote, Decision Analysis Society of INFORMS (2022)

Panelist, UT Health Communications Conference (2022)

Speaker, UT High School Research Initiative (2022)

Speaker, American College of Obstetricians and Gynecologists (ACOG) (2022)

Panelist, American Association of Health Care Journalists (2022)

Speaker, numerous COVID-19 meetings, US Centers for Disease Control and Prevention (CDC) (2020-2022)

Speaker, Johns Hopkins University (2022)

Speaker, Oden Institute (2022)

Speaker and Panelist, American Association for the Advancement of Science (AAAS) Annual Meeting (2022)

Panelist, Games and Learning Alliance (GALA) (2021)

Speaker, Council of State and Territorial Epidemiologists (CSTE) (2021)

Seminar, University of Texas Medical Branch, Infectious Diseases and Immunity Colloquium (2021)

Speaker, National Academies of Sciences, Engineering, and Medicine (NASEM) Webinar: Housing Instability and Health (2021)

Speaker, National Association of County and City Health Officials (NACCHO) Webinar: Preparing for the 2021-2022 Flu Season (2021)

Speaker, UT Austin Portugal Annual Conference (2021)

Speaker, Travis County Medical Society Town Hall (2020, 2021)

Seminar, University of Texas Medical Branch (2021)

Seminar, Research Experiences for Undergraduates Program, Santa Fe Institute (2021)

Moderator and Organizer, Panel: How public health agencies can benefit from infectious disease modeling, MIDAS Network Annual Meeting (2021)

Speaker, Hertz Foundation (2021)

Speaker, Margolis Center for Health Policy, Duke University (2021)

Speaker/Panelist, National Academies of Sciences 158th Annual Meeting, COVID-19 Symposium: Strategic Planning for Crises (2021)

Keynote speaker, 8th Annual Louisiana Conference on Computational Biology and Bioinformatics (2021)

Speaker and Panelist, Science of Herd Immunity, Stanford University (2021)

Keynote, Mathematics and Statistics Awareness Month, Texas State University (2021)

Seminar, London School of Hygiene & Tropical Medicine (2021)

Seminar, Penn State University (2021)

Seminar, University of Nebraska (2021)

Seminar, Emory University (2021)

Marden Lecture, University of Wisconsin, Milwaukee (2020)

Symposium Speaker, European Scientific Working Group on Influenza, Seventh Influenza Conference (2020)

Speaker, IEEE EMBS Grand Challenges Forum on COVID-19 (2020)

Speaker, Santa Fe Institute Virtual ACtioN and Board of Trustees Symposium – The Complexity of Crisis (2020)

Panelist, Redefining Possible, Dell Technologies World Conference (2020)

Featured speaker, special COVID-19 meeting, Texas Hospital Association (2020)

Speaker, TACCSTER 2020 (2020)

Public lecture, University Lecture Series, UT (2020)

Seminar, University of Idaho (2020)

Featured speaker, Headliners Club, Austin, Texas (2020)

Speaker, School Reopening Webinar, National Council on School Facilities & Cooperative Strategies (2020)

Speaker and panelist, Mathematical Models of Prediction and Control of Epidemics Conference Mathematical Sciences Research Institute (MSRI) at University of California, Berkeley (2020)

Featured speaker, Global TechTalk, Cirrus Logic, Inc. (2020)

Speaker, Special Called Meetings on COVID-19, Austin City Council (three meetings, 2020)

Speaker/panelist, COVID-19: Mitigating the Outbreak in Texas, The Academy of Medicine Engineering & Science of Texas (TAMEST) (2020)

Colloquium Speaker, Texas State University, Honors Summer Math Camp (Mathworks) (2020)

Speaker, National Academies of Sciences, Engineering, and Medicine (NASEM) Committee: Guidance for K-12 Education on Responding to COVID-19 (2020)

Speaker, US House of Representatives' Committee on Science, Space and Technology (2020)

Speaker, Time Machine 2020, Spark Cognition (2020)

Speaker, School of Public Health COVID-19 Webinar, Columbia University (2020)

Speaker, COVID-19 Showcase, HealthTech Austin (2020)

Speaker/panelist, Hacking Coronavirus Webinar, Center for Excellence in Education (2020)

Speaker, COVID-19 What Happens Next (2020)

Speaker/panelist, COVID-19 Modeling and Testing in Texas, The Academy of Medicine Engineering & Science of Texas (TAMEST) (2020)

Speaker, COVID-19 Session, Travis County Commissioners Court (2020)

Speaker, Computing in Our New Normal, University of Texas (2020)

Panelist, Harvard University 25th Reunion - COVID-19 Panel (2020)

Featured speaker, In the Arena, LBJ School, University of Texas (2020)

Speaker, Austin Healthcare Council (2020)

Speaker, US White House Coronavirus Task Force (2020)

Speaker, US White House Office of Science and Technology Policy (2020)

Seminar, Stanford University (2020)

Speaker, Flash Workshop - After the First Wave, Santa Fe Institute (2020)

Ulam Public Lecture Series, Preventing the Next Pandemic, Santa Fe Institute (2019)

Seminar, Dartmouth University (2019)

Moderator, CNS Cross-Cutting Conversations: Computational Health, UT (2019)

Speaker, Annual Meeting of the American Marketing Association (2019)

Seminar, ISGlobal: Barcelona Institute for Global Health (2018)

Speaker, UC-Berkeley Miller Institute Interdisciplinary Symposium (2017)

Seminar, ISGlobal: Barcelona Institute for Global Health (2017)

Seminar, Odum School of Ecology, University of Georgia (2017)

Speaker, Santa Fe Institute 2017 Influence, Complexity and Networks: New Views for Business, Politics, Innovation, and Growth, Long Center, Austin, Texas (2017)

Seminar, Ecology and Evolutionary Biology Department, University of California, Los Angeles (March 2016)

Speaker/Panelist, CDC Director's Public Health Grand Rounds (January 2016)

Speaker/Panelist, 2015 Society of Actuaries Health Meeting (June 2015)

Speaker, James S. McDonnell Foundation Symposium Honoring John T. Bruer (May 2015)

Speaker, Mathematical Science Research Institute, Board of Trustees Annual Meeting (November 2014)

Keynote, Santa Fe Institute, Breakfast with SFI Series at HomeAway (October 2014)

Seminar, Physics Nonlinear Dynamics Series, The University of Texas at Austin (October 2014)

Speaker, UT University Lecture Series (September 2014)

Keynote, Santa Fe Institute Workshop: Next Generation Surveillance for the Next Pandemic (May 2014)

Speaker, TedX Youth Conference, Austin, Texas (February 2014)

Keynote, Santa Fe Institute Workshop: Next Generation Surveillance for the Next Pandemic (May 2014)

Public Lecture, Wisconsin Institute for Discovery, University of Wisconsin, (December 2013) http://vimeo.com/84332584

Speaker, 2nd International Conference on Digital Disease Detection, San Francisco, CA (November 2013)

Speaker, Centers for Disease Control and Prevention, Digital Surveillance Meeting, Atlanta, GA (August 2013)

Televised Lecture, Bill Gates Dedication of Gates Dell Computer Science Hall, The University of Texas at Austin (March 2013) http://www.youtube.com/watch?feature=player_embedded&v=UOPWydeC6a0

Speaker and Panelist, Institute of Medicine Modeling Workshop, 2013 Public Health Preparedness Summit, Atlanta, GA (March 2013)

Morrison Institute Colloquium, Stanford University (February 2013)

Plenary, 2012 Annual meeting of the Society for Mathematical Biology Conference, Knoxville, Tennessee (July 2012)

Lecture, Texas Exes Alumni College (June 2012)

Centers for Disease Control and Prevention, Influenza Units, Atlanta, Georgia (May 2012)

Speaker, Santa Fe Institute 2012 Science Board and Board of Trustees Symposium (May 2012)

Speaker, Institute of Medicine (IOM) Preparedness Forum, Washington, DC (April 2012)

Ritchey Public Lecture, Weber State University Distinguished annual lecture for College of Sciences (February 2012)

Seminar, LBJ School, The University of Texas at Austin (February 2012)

Game Changers, The University of Texas at Austin, Public lecture televised on Longhorn Network (January 2012)

Seminar, Wireless Network & Communications Group, The University of Texas at Austin (September 2011)

Invited Address, Mathematical Association of America MathFest 2011, Kentucky (August 2011)

Symposium Presentation, Ecological Society of America Annual Meeting, Austin, Texas (August 2011)

Participant and presenter, Sci Foo Camp hosted by Nature, O'Reilly Media, and Google, Mountain View, California (August 2011)

Lecture, Texas Regional Collaborative 17th Annual Meeting for K-12 STEM Educators (June 2011)

Grand Rounds Presentation, Texas Department of State Health Services (DSHS) (May 2011)

Lecture, Harrington Foundation Symposium, Amarillo, Texas (April 2011)

Keynote Lecture, University of New Mexico Biology Research Day (March 2011)

Seminar, Trinity University (February 2011)

Lecture, City of Austin Pandemic Planning Group (February 2011)

Invited Lecture, INFORMS Annual Meeting, TutORials in Operations Research (November 2010)

Invited Symposium Lecture, I² Integration and Innovation Public Health Preparedness Symposium, Texas Department of State Health Services (July 2010)

Plenary Lecture, International Conference on Drug Development (February 2010)

Seminar, Operations Research Industrial Engineering, The University of Texas at Austin (February 2010)

Public Lecture, Santa Fe Institute Public Lecture Series, James A. Little Theater (January 2010)

Panelist, LBJ Center for Health and Social Policy, The University of Texas at Austin (December 2009)

Lecture, Santa Fe Institute Annual Business Network & Board of Trustees' Symposium (November 2009)

Public Lecture, Rice University (October 2009)

Dean's Advisory Council, The University of Texas at Austin (October 2009)

Seminar, University of Wisconsin-Milwaukee (August 2009)

Seminar, Biomedical Advanced Research & Development Authority, Washington DC (July 2009)

Conference speaker, MIDAS Network Meeting, Emory University (June 2009)

Seminar, Rice University (February 2009)

Seminar, Cornell University (October 2008)

Seminar, University of Pennsylvania (October 2008)

Conference speaker, National Security Agency (June 2008)

Seminar, University of Houston (April 2008)

Seminar, University of Wisconsin, Milwaukee (April 2008)

Goldschmidt Keynote Lecture, American Society for Microbiology Spring Meeting, Texas (March 2008)

Seminar, Emory University (March 2008)

Workshop speaker, Working Group on Efficient Wildlife Vaccination, National Center for Ecological Analysis and Synthesis (NCEAS) (March 2008)

Workshop speaker, Santa Fe Institute workshop on Models of Emergent Behavior in Complex Adaptive Systems (December 2007)

Seminar, Yale University (November 2007)

Carnegie Lecture, School of Journalism, University of Texas at Austin (November 2007)

Workshop speaker, NIH Models of Infectious Disease Agent Study (MIDAS) Workshop on Representation of Microbial Evolution in Epidemic Models (November 2007)

Conference lecture, Gordon Research Conference on Microbial Population Biology (July 2007)

Special lecture, University of Texas Chancellor's Salon Series (April 2007)

Plenary speaker, NSF Theoretical Biology Workshop (October 2006)

Invited Public Lecture, Cultural Life Program at Furman University (October 2006)

Symposium lecture, Ecology Society of America Annual Meeting, Symposium on ecological and evolutionary processes in complex networks (August 2006)

Seminar, Los Alamos National Laboratory (June 2006)

Seminar, University of Tokyo, Department of Pure and Applied Sciences (May 2006)

Symposium lecture, Frontiers in Dynamics: Physical and Biological Systems, 9th Tamura Symposium, Tokyo (May 2006)

Seminar, Texas State University, Department of Mathematics (April 2006)

Seminar, Lawrence Livermore National Labs, Los Alamos, New Mexico (April 2006)

Seminar, University of Michigan, Bioinformatics Program (March 2006)

Seminar, University of Maryland, Behavior, Evolution, Ecology & Systematics Department (March 2006)

Intelligence briefing, National Intelligence Council, Science and Technology Expert Partnership, Infectious Disease Modeling Conference (March 2006)

Seminar, Introduction to Mathematical Research Seminar, University of Texas (March 2006)

Workshop lecture, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Epidemiology and Evolution of Influenza Workshop (January 2006)

Conference lecture, Special Session on Current Events, 2006 Joint Mathematics Meetings of the American Mathematics Society. This is a highly publicized session at the largest US mathematics meetings. Speakers are invited personally by the President of the American Mathematics Society (AMS) to present recent advances in exciting mathematical fields. (January 2006)

Symposium lecture, Spread of Pathogens of Social Animals with Particular Reference to the Morbilliviruses, Penn State University (November 2005)

Keynote, Regional Finals, Siemens-Westinghouse Science and Math Competition (November 2005)

Seminar, Texas State University, Biology Department (November 2005)

Conference lecture, 3rd Annual Ecology & Evolution of Infectious Disease Conference, Colorado State University (May 2005)

Seminar, University of Minnesota, Ecology, Evolution, and Behavior Department (May 2005)

Seminar, University of Texas, Non-linear Dynamics Seminar, Department of Physics (April 2005)

Seminar, Introduction to Mathematical Research Seminar, University of Texas (April 2005)

Seminar, University of Texas, Planets and Life Seminar, Astronomy Department (February 2005)

Symposium lecture, Symposium on Network Science: Implications for Biology and Medicine, Peter Wall Institute for Advanced Studies, Vancouver, Canada (January 2005)

Seminar, University of Michigan, Center for the Study of Complex Systems (November 2004)

Panelist, University of Texas, Freshman Women in Science Seminar (October 2004)

Panelist, MIT Technology Review Emerging Technologies Conference (September 2004)

Seminar, Los Alamos National Labs, Los Alamos, New Mexico (May 2004)

Seminar, Introduction to Mathematical Research Seminar, University of Texas (April 2004)

Special lecture, Mathematical Sciences Research Institutes (MSRI), Annual Meeting of Academic Sponsors (March 2004)

Seminar, Brown University, Department of Ecology and Evolutionary Biology (February 2004)

Seminar, University of Texas Dean's Scholars Seminar (November 2003)

Lecture, Santa Fe Institute, Business Network & Board of Trustees Annual Meeting (November 2003)

Seminar, Texas Department of Health (October 2003)

Lecture, Gordon Research Conference on Evolutionary & Ecological Functional Genomics (August 2003)

Seminar, National Center for Genome Resources (NCGR) Santa Fe, New Mexico (May 2002)

Session chair, Workshop on the Evolution and Measurement of Robustness in Organisms, Santa Fe Institute, Organizer: Günter Wagner (April 2002)

Seminar, University of Arizona, Ecology and Evolutionary Biology Department (January 2002)

Conference lecture, *Modularity: Understanding the Development and Evolution of Complex Natural Systems*, Konrad Lorenz Institute for Evolution and Cognition Research, Austria (October 2000)

Seminar, Institute for Advanced Studies, Princeton, New Jersey (October 1999)

EDUCATIONAL OUTREACH

Regularly lecture at Austin-are K-12 schools (2003-)

Keynote, UT Best of Texas recruitment event for class of 2021 (2017)

MathWorks: Texas State Honors Summer Math Camp, Texas State University: Student research project advisor and guest lecturer (2006, 2007, 2009, 2011, 2012, 2017, 2020)

Lecture, UT Forum (March 2016)

Panelist, CNS Discovery Dinner on Big Data (2015)

Speaker, Undergraduate Lecture Series: https://ugs.utexas.edu/uls (2014)

Santa Fe Institute Short Course, Exploring Complex Networks (2013)

AJA Elementary School Science Fair, judge (2010-2014) and keynote speaker (2010, 2015)

Blue Knot Austin Tech Initiative, Outreach lecture (2009)

Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), Taught short course on Network Theory in Infectious Diseases (2009)

Complex Systems Summer School, Santa Fe Institute, Lecture series (2002, 2007, 2009)

Saturday Morning Math Group, Interactive outreach lecture for junior high and high school students, University of Texas at Austin (April 2006)

University of Texas Environmental Science Institute, Hot Science – Cool Talks Outreach Lecture (April 2006)

Keynote Lecture, First Bytes computer science summer camp for high school girls, UT (2005)

Advisory Board, Cogito.org: Web Site for Exceptional Young Scientists and Mathematicians (2005-present)

Outreach Lecture, University of Texas LAMP: Learning Activities for Mature People (2004, 2007)

Crazy Science Extravaganza, UT: Developed an epidemiology learning activity for interactive elementary school science fair (2003, 2004)

Research Science Institute, M.I.T., Presented lecture series: "Mathematical Modeling in Evolution, Ecology and Epidemiology" (Summer 2002)

SERVICE

Founder and director, <u>UT COVID-19 Modeling Consortium</u> (2020-): Established interdisciplinary research group with dozens of faculty, postdocs, graduate students and undergraduates from UT and collaborating institutions, including Dell Medical School, the Texas Advanced Computing Center, Yale School of Public Health, Northwestern University, University of Idaho, Santa Fe Institute, and Los Alamos National Labs. As director, Meyers oversees myriad modeling efforts to provide COVID-19 situational awareness and decision support for authorities and communities nationwide, leads daily zoom calls for the entire consortium and core technical team, and has secured substantial grant and foundational funding to support the consortium.

Member, National Academies of Sciences, Engineering, and Medicine (NASEM) Response and Resilient Recovery Strategic Science Initiative (R3SSI) Strategy Group on COVID and Rental Evictions (2020-2021)

Member, Austin Area Executive COVID Task Force (2020-)

Member, COVID Task Force, St. Stephens Episcopal School (2020-)

Member, COVID Task Force, Austin Jewish Academy (2020-)

Ad hoc COVID policy consulting and modeling (2020-2021): US Centers for Disease Control and Prevention, White House Coronavirus Task Force, Office of Science and Technology Policy, The White House, Texas Education Agency, Texas COVID Task Force, Multiple school systems

Member, Science Advisory Board, Santa Fe Institute, Santa Fe, New Mexico (2011-2017, 2020-)

Member, Science Advisory Board, Institute for Pure and Applied Mathematics (IPAM) – An NSF Math Institute at UCLA (2021-)

Executive Committee of Steering Committee of NIGMS MIDAS Program (Chair 2014-2016; Member 2018-) Advisory Board, Outbreak Science, a nonprofit facilitating science and data sharing during infectious disease outbreaks (2016-)

GRANT REVIEWING

Member of NIH Study Section: Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions (IRAP) (2020-)

Advisory Board, McDonnell Foundation Postdoctoral Fellowships (2011-)

Ad Hoc Member of NIH Study Section: Infectious Disease, Reproductive Health, and Asthma/Pulmonary Conditions (IRAP) (June 2019)

NSF review panel for Evolutionary Genetics (October 2006)

NIH review panel for Biomedical Information Science and Technology Initiative (BISTI) (March 2004)

Ad Hoc Grant Reviewer for NIH, NSF, Mardsen Fund, MITACS (2002-present)

MEETING ORGANIZATION

UT COVID-19 Conference (2020) Organizer and Keynote Speaker of two-day conference (https://events.attend.com/f/1383792571)

Epidemics: International Conference on Infectious Disease Dynamics, Steering committee for international meeting (2008, 2009, 2013)

Working groups: Quantitative Prediction and Control of Epidemics, Organized and directed six-person working group, Santa Fe Institute (February 2009)

Network Models of Biological and Social Contagion, Organized and directed a 25-person working group (with Michelle Girvan), Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Rutgers, New Jersey (November 2008)

The Evolution of Gene Expression in Tissues, Organized and directed a 5-person working group (with Michael Lachmann), Santa Fe Institute (June 2006)

Network Robustness to Evolving Agents, Organized and directed an 8-person working group (with Tim Keitt), Santa Fe Institute (January 2005)

Evolvability and Robustness in Molecules and Microbes, Organized and directed 25-person international workshop (with Christopher Voigt and Frances Arnold), Santa Fe Institute (February 2002)

EDITORIAL & REFEREE ACTIVITIES

Associate Editor, Infectious Disease Modeling (2016-)

Faculty Member, Theoretical Ecology Section, Faculty of 1000 (2009-)

Associate Editor, Epidemics (2009-)

Associate Editor, PLoS Computational Biology (2006-2013)

Interdisciplinary Perspectives on Infectious Diseases

Associate Editor (2007-2011)

Lead Editor, Special Issue on Network Perspectives on Infectious Disease Dynamics (2010)

Associate Editor, Statistical Communications in Infectious Diseases (2009-2012)

Associate Editor, Evolution (2008-2010)

Associate Editor, Journal of Molecular Evolution (2004-2008)

Guest Editor, PLoS Medicine, PNAS (2006-)

Referee for numerous journals including American Journal of Epidemiology, American Naturalist, Biology Letters, Biological Reviews, Biosystems, Ecology Letters, Evolution, Genetics, Journal Theoretical Biology, Mathematical Biosciences, Nature, Nature Physics, OIKOS, Physics Letters A, PLoS Biology, PLoS Computational Biology, PLoS Medicine, Proceedings B, Science (1999-present)

UNIVERSITY SERVICE

Co-Chair, President's Strategic Planning Initiative (2021-)

Co-Chair, President's Council for TEXAS Impact (2019-)

Director, NIH T32 Training Grant in Big Data for Biomedicine (2018-); Steering Committee (2016-)

Member, University Budget Council (2017-)

Team member, ASCN Systemic Change Institute (2019)

CNS Promotion & Tenure Committee (2015-16; 2016-17)

Elected Member, UT Faculty Council (2008-2010, 2015-2017) and UT Faculty Council Executive Committee (2015-2016)

Campus Conversation Participant & Faculty Professional Development Committee (2014-2015)

Director (2011-2014), Associate Director (2008-2010), Division of Statistics and Scientific Computation (SSC): Built and led new statistics department at UT. Hired ten new faculty, and introduced over 40 new courses, a new statistics Ph.D. program, two interdisciplinary undergraduate certificate programs and two graduate portfolio programs in statistics and scientific computation, a Graduate Student Fellows Program, a Distinguished Lecture Series, an Early Career Grant Development Program for junior faculty, a Summer Statistics Institute (annually since 2008), and full-time statistical consulting services.

Faculty Advisor, Undergraduate degree in Computational Biology (2008-2011)

Developed new degree plan in Computational Biology (2007-2008)

Advisory Committee, Institute for Cellular and Molecular Biology (2008-2011)

Faculty search committees: IB Faculty Search Committee (2015-2016), Committee chair, Director of Division of Statistics and Scientific Computation (2009-2010), Evolutionary and ecological genomics, Integrative Biology (2005-2006), Computational biology, Integrative Biology (2003-2004), Molecular evolution, Integrative Biology (2003-2004)

Faculty promotion committees: five since 2009