

Yvonne J Huang, MD

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Education and Training

9/1993-6/1997 Stanford University, Stanford CA; B.S. Biological Sciences
7/1997-6/2001 University of Alabama School of Medicine, Birmingham AL; M.D.
7/2001-6/2004 Yale-New Haven Hospital, New Haven CT; Residency, Internal Medicine
7/2005-6/2008 University of California, San Francisco CA; Fellowship, Pulmonary and
Critical Care Medicine
7/2008-6/2010 University of California Tobacco-related Disease Research Program; Post-
doctoral fellowship, Microbial Ecology

Certification and Licensure

Board certifications

2004-2014 Internal Medicine, American Board of Internal Medicine. Candidate #226564,
2007-2017 Pulmonary Diseases, American Board of Internal Medicine,
Re-certified 10/2017, Certificate valid through 12/31/2027
2009-2019 Critical Care Medicine, American Board of Internal Medicine,

State Licensures

2014-present State of Michigan, license #4301106378
2005-2016 State of California, license #A91912
2004-2005 State of Connecticut, license #042609

Academic, Administrative, and Clinical Appointments

Academic appointments

7/2008-6/2011 Health Sciences Clinical Instructor, Division of Pulmonary/Critical Care
Medicine, Dept. of Medicine, University of California, San Francisco
7/2011-10/2014 Adjunct Assistant Professor, Division of Pulmonary and Critical Care
Medicine, Dept. of Medicine, University of California, San Francisco
11/2014-8/2020 Assistant Professor, Division of Pulmonary/Critical Care Medicine, Dept. of
Internal Medicine, University of Michigan, Ann Arbor
9/2020- Associate Professor (tenured), Division of Pulmonary/Critical Care Medicine,
Department of Internal Medicine, University of Michigan, Ann Arbor
10/2021- Associate Professor (joint), Department of Microbiology/Immunology,
University of Michigan, Ann Arbor

1/2023- Faculty Affiliate, Michigan Center for Infectious Disease Threats, University of Michigan, Ann Arbor

Other clinical appointments

7/2004-6/2005 Staff physician, Yale-New Haven Hospitalist Service, New Haven CT

7/2011-10/2014 Associate Director, UCSF Adult Cystic Fibrosis Program, San Francisco CA

Research Interests

1. Microbiome 2. Respiratory 3. Asthma 4. COPD 5. Cystic fibrosis

Honors and Awards

1997 Haas Center for Public Service Award, Stanford University
1998 NIH Summer Research Apprenticeship Award, University of Alabama at Birmingham
2001 Alpha Omega Alpha Medical Honor Society, University of Alabama at Birmingham
2002 Yale/Johnson & Johnson Physician Scholar in International Health; Patan Hospital, Kathmandu, Nepal
2004 Yale/Johnson & Johnson Physician Scholar in International Health, rural health clinic, Nadi, Fiji
2005 "All-Star" Physician award, Yale-New Haven Hospital, New Haven CT
2008 Post-doctoral fellowship award, University of California Tobacco-related Disease Research Program
2008 American Thoracic Society Travel Award, American Thoracic Society; Assembly on Allergy, Immunology and Inflammation
2009 American Thoracic Society Travel Award, American Thoracic Society; Assembly on Clinical Problems/COPD Foundation
2009 First Prize in Clinical Research, 6th Annual Respiratory Disease Young Investigator Forum; Phoenix, AZ.
2011 THANKS Star Award for clinical service; UCSF Medical Center
2016 American Society for Clinical Investigation Young Physician-Scientist Award
2017 Science and Innovation Center Rising Star in Research Award, American Thoracic Society,
2018 Early Career Achievement Award, American Thoracic Society, Assembly on Allergy, Immunology and Inflammation
Making a Difference, Michigan Medicine Employee Recognition Program.
2019 Jo Rae Wright Award for Outstanding Science, American Thoracic Society
2020 Fellow (elected), American Thoracic Society
2023 American Academy of Allergy, Asthma and Immunology Foundation and Harold Nelson, MD, FAAAAI- Investing in Our Future Lectureship
2023 Roger S. Mitchell Memorial Lecture- Aspen Lung Conference 2023

Memberships in Professional Societies

2001-present Alpha Omega Alpha

- 2005-present American Thoracic Society; Member of Assembly on Allergy, Immunology and Inflammation (primary), Section on Genetics and Genomics, and Assembly for Clinical Problems (secondary)
- 2017-present American Academy of Allergy, Asthma, and Immunology

Editorial Positions, Boards, and Peer-Review Service

Journal Peer-Review

- 2012 Journal of Clinical Microbiology
- 2013 Lancet Respiratory Medicine, American Journal of Respiratory and Critical Care Medicine, Annals of the American Thoracic Society
- 2014 Thorax, Journal of Asthma, Lancet, Journal of Allergy and Clinical Immunology, ISME Journal
- 2015 European Respiratory Journal, American Journal of Respiratory and Critical Care Medicine, Journal of Allergy and Clinical Immunology, Lancet Respiratory Medicine, Scientific Reports
- 2016 Journal of Allergy and Clinical Immunology, Pediatrics, Clinical Infections and Microbiology, American Journal of Respiratory and Critical Care Medicine, PLoS One, American Journal of Respiratory Cell and Molecular Biology, Microbiome, Clinical and Translational Immunology
- 2017 Cell, Nature Medicine, Journal of Allergy and Clinical Immunology, American Journal of Respiratory and Critical Care Medicine, European Respiratory Journal, PLoS One, Scientific Reports
- 2018 Cell Host Microbe, Lancet Respiratory Medicine, PLoS Pathogens, Journal of Allergy and Clinical Immunology, Chest, American Journal of Respiratory and Critical Care Medicine, Microbiome, European Respiratory Journal, Allergy
- 2019 Science Translational Medicine, PLoS Pathogens, Lancet Respiratory Medicine, Nature Medicine, Nature Communications, Journal of Allergy and Clinical Immunology, American Journal of Respiratory and Critical Care Medicine, European Respiratory Journal, Pulmonary Pharmacology & Therapeutics, Environmental Health Perspectives, BMC Pulmonary Medicine
- 2020 Science Translational Medicine, American Journal of Respiratory and Critical Care Medicine, British Medical Journal, Lancet Microbe, NPG Biofilms and Microbiome, Journal of Allergy and Clinical Immunology, EBioMedicine
- 2021 Lancet Microbe

American Journal of Respiratory and Critical Care Medicine,
 Journal of Allergy and Clinical Immunology,
 NPJ Biofilms Microbiomes,
 Clinical and Experimental Allergy

2020-2021 Editor; *The Microbiome in Respiratory Disease: Principles, Tools and Applications*. ATS Respiratory Medicine Series; Springer International Publishing, 2022. ISBN-13: 9783030871031 *As organizing editor, proposed and peer reviewed all chapters.

2022 American Journal of Respiratory and Critical Care Medicine
 Journal of Allergy and Clinical Immunology
 European Respiratory Journal,
 Nature Communications
 Cell Host Microbe

2023 American Journal of Respiratory and Critical Care Medicine
 Journal of Allergy and Clinical Immunology
 Allergy
 European Respiratory Journal
 Clinical and Experimental Allergy
 Cell
 eBiomedicine

Grant Review (government, foundation, university)

2013 Netherlands Organisation for Health Research & Development (ZonMW),
 NIH/NHLBI, Special Emphasis Panel (declined), French National Institute
 for Agricultural Research (INRA) –European Commission COFUND-FP7
 People Programme (declined)

2014 NIH/NIEHS intramural grant review, Asthma Foundation of Western
 Australia, Lung Foundation Netherlands, Health Research Board of Ireland

2015 NIEHS ONES R01 program (SEP ZES1-JAB-J (R0)1)
 Medical Research Council (UK)

2016 Asthma UK, University of Nebraska Food for Health Initiative
 NIH/NIAID, Asthma and Allergic Diseases Cooperative Research Centers,
 SEP ZAI1 LAR-I (M1)
 Canadian Institutes for Health Research
 NIH/NIEHS P42 Superfund Research Program SEP ZES1 LKB-K(S)
 NIH/NHLBI Mentored Patient-Oriented Research Career Development
 Award (SEP MPOR (JA) 1)
 NIH/NIAID, Consortium for Food Allergy Research, SEP ZAI1-LAR-I(J1)
 Health Research Board of Ireland

2017 NIH/NHLBI, Mentored Patient-Oriented Research Career Development
 Award SEP MPOR (JA) 1)
 NIH study section SEP (Infectious Diseases, Reproductive Health,
 Asthma and Pulmonary Conditions) ZRG1 PSE-V(90)R.

2017 Asthma UK, Action Medical Charities UK

2018	NIH/NIAID U01 Clinical Trial Implementation, SEP ZAI1 LAR-I (M1)1 Michigan Institute for Clinical and Health Research Pilot Grant program Microbiome Explorer Program, Univ. of Michigan
2019	UK Medical Research Council Leibniz Association Research Collaborative (Germany) Microbiome Explorer Program, Univ. of Michigan Postdoctoral Translational Scholar Program, Univ. of Michigan
2020	Health Research Board of Ireland NHLBI Maximizing the Scientific Value of the NHLBI Biorepository: Scientific Opportunities for Exploratory Research (R21)
2021	NIH/NIAID, Asthma and Allergic Diseases Cooperative Research Centers SEP ZAI1 TC-I (M1) NIH/NIAID Immune Development in Early Life (IDEaL; U01/U19; SEP/SRG 2022/01 ZAI1 MMF-X (J1) 1 (invited)
2022	Irish Research Council - Laureate Program NIH/NIMHD, Research Centers in Minority Institutions (U54), SEP (invited) NIH/NIAID, Asthma and Allergic Diseases Cooperative Research Centers (2023/01 ZAI1 JTS-I (J1) 1) NIH/NIAID Program Project Grant applications (PO1) (invited)
2023	NIH/NHLBI Mentored Transition to Independence study section (MTI), (OA)1

Editorial Positions/Boards

2017-2019 Associate Editor, BMC Pulmonary Medicine

Teaching/Mentoring/Dissertation Committee

2007-2008	UCSF School of Medicine, first year course - Major Organ System Block: Pulmonary. Winter quarter. Small group discussion leader.
2008-2009	UCSF School of Medicine, first year course - Major Organ System Block: Pulmonary. Winter quarter. Small group discussion leader.
2012-2014	UCSF adult cystic fibrosis clinic. Supervision and teaching of pulmonary clinical fellows.
5/2012	Postgraduate course; "Exacerbations of COPD: measurement, mechanisms, modeling, and management. "The -Omics era of studying exacerbations: microbiome studies", American Thoracic Society International Conference, San Francisco CA
8/13/2014	Randall Ruprecht Memorial Lecture, UCSF Division of Pulmonary and Critical Medicine Grand Rounds. "Update on infection prevention and control in patients with cystic fibrosis"
2/26/2015	University of Michigan Nurse Practitioner Student Lecture, "Asthma".
2/27/2016	University of Michigan Nurse Practitioner Student Lecture, "Asthma".
2013-2014	Juliana Durack, PhD, post-doctoral research fellow (co-supervisor)
2014-2016	Snehal Nariya, BS (pre-doctoral research mentor; now in Master's program)
9/2015-9/2017	Ogechukwu Ndum MD, UM Allergy/Immunology fellow, research mentor)
9/2017-6/2019	Siddharth Madapoosi; UM undergraduate; pre-doctoral research mentor)
2018-2019	Lauren Castner (UM Pediatric Pulmonary fellow), Scholarly Oversight

	Committee.
2019	Saara Kanyemba, MS; University of Cape Town, Pathology, Dissertation Reviewer; “Association of Faecalibacterium, Lachnospira, Veillonella, and Rothia with childhood wheezing”
6/2018-6/2022	Ariangela Kozik PhD, T32 Post-doctoral fellow (primary research mentor)
1/2019-6/2020	Sherry Zhou MD, UM Allergy/Immunology fellow (primary mentor)
9/2019-6/2020	Siddharth Madapoosi BS; Univ. of Michigan graduate student, Master of Public Health, Epidemiology (primary research mentor)
9/2019-12/2019	Eduard Monso MD, PhD (Visiting Scholar); Director, Department of Respiratory Medicine, Hospital Universitari Parc Taulí, Sabadell, Barcelona, Spain and Department of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain
1/2020- 6/2021	Michelle El-Hosni MD, UM Allergy/Immunology fellow (primary mentor)
7/2020-12/2022	Siddharth Madapoosi BS, MPH. University of Michigan medical student (primary research mentor)
2020-present	Alexander Ethridge (thesis committee), University of Michigan Graduate Student, Candidate, IMM PhD Program Bioinformatics Dual-Degree Masters/PhD Program
6/2021-8/2021	Courtney Browne, MICH summer research program for undergraduates
10/2021-6/2022	Zara Ahmed, Univ of Michigan undergraduate; faculty mentor Asha Baddi, Univ of Michigan Undergraduate Research Opportunity Program
10/2021-present	Yize Hao, Univ of Michigan Undergraduate Research Opportunity Program
2021	Vickram Tejwani MD (junior faculty- Cleveland Clinic; ATS-All Assembly Mentoring Program)
2022	Matthew Moll MD (junior faculty- Harvard Medical School; ATS-All Assembly Mentoring Program) Meghan Althoff MD (clinical fellow- University of Colorado; ATS-All Assembly Mentoring Program)
2021-present	Shijing Jia MD, Clinical Assistant Professor (faculty mentor; Univ. of Michigan)
2021-present	Sarah Brown MD, Clinical Assistant Professor (faculty mentor; Univ. of Michigan)
2019-ongoing	Weekly fellows clinic- attending staff
2022	University of Michigan Medical School- Patient-Based Scientific Inquiry PBSI 8302 MEDADM Course. Faculty Scientific Lead
2023-	Charlotte Alemao; University of Newcastle Australia, PhD Dissertation External Examiner (advisors: Phillip Hansbro, Jay Horvat)
2023-present	Amarbir Gill MD, Assistant Professor (Otolaryngology; Univ. of Michigan)
2023-present	Kyra Henderson, undergraduate Univ. of Michigan

Committee, Organizational, and Volunteer Service

University/Institution-level

2009-2013	UCSF Cystic Fibrosis Center’s transition program quality improvement project
11/2010	“The microbiome in COPD exacerbations”, oral abstract, UCSF Division of Pulmonary and Critical Care Medicine Research Retreat

4/2011	<i>Science Today</i> (University of California and CBS radio network) interview on the airway microbiome in asthma
2012-2014	Interviewer, UCSF Pulmonary and Critical Care Fellowship applicant selection
4/2014	“Asthma and the microbiome”, profiled in Canada’s <i>The Medical Post</i>
6/2014	“Breathing Life into Lung Microbiome Research”, interview for <i>The Scientist</i>
8/13/2014	“Update on infection prevention and control in patients with cystic fibrosis”, Randall Ruprecht Memorial Lecture, UCSF Division of Pulmonary and Critical Medicine Grand Rounds.
12/11/2015	University of Michigan Department of Internal Medicine Grand Rounds. “Asthma and the microbiome: recent studies reincarnating old hypotheses”
10/14/2016	“Asthma and the Microbiome.” 6 th Annual Symposium, Univ. of Michigan-Peking University Joint Institute for Translational and Clinical Research
10/18/2016	“New Insights and Directions Towards Understanding the Role of the Microbiome in Asthma.” Microbiome Seminar Series, Host-Microbiome Initiative, Univ. of Michigan
10/11/2017	Dean’s Frontier Seminar Series, University of Michigan Medical School, “Human Microbiomes and Asthma Phenotype: Next Frontiers”
10/25/2017	UM Pulmonary Division Research Conference, “Human Microbiomes and Asthma Phenotype: the CAARS/MICROMAAP studies”
2016-2019	Local Executive Committee (member), Host-Microbiome Initiative, University of Michigan Medical School
2017-2019	Leader, Asthma Translational Research Interest Group, University of Michigan; initiated monthly meetings of faculty PIs doing asthma-related research to present and exchange research ideas
2018	Michigan Institute for Clinical and Health Research (MICHHR) grant reviewer
10/2018	Univ. of Michigan Pulmonary Division Research Conference, “Re-defining asthma: multi-system, microbial and molecular windows”
2019	Grant review; Microbiome Explorer Program, Univ. of Michigan Postdoctoral Translational Scholar Program, Univ. of Michigan
4/18/2019	interview on gut microbiome and asthma research article (pulmonologyadvisor.com)
1/22/2020	Seminar, “Looking across and within: microbiome modifiers of asthma and COPD phenotype”; University of Michigan Medical School Microbiome Research Seminar Series
10/2020-1/2021	Dept of Internal Medicine Review Committee for Division of Cardiovascular Medicine, University of Michigan.
2019-present	Interviewer for UM Internal Medicine Residency (PTSP program) and Pulmonary/CCM Fellowship program.
2021-present	UM Pulmonary Division, Basic/Translational Science Recruitment Committee
2022-present	UM Pulmonary Division Visiting Professor Committee
2022	Media contributions/written commentary: <i>Medscape</i> , <i>Physician’s Weekly</i>
2022-present	UM Pulmonary Division Research Task Force Committee
2023-present	Promotions and Advancement Committee; Department of Internal Medicine University of Michigan Medical School

National/International

12/2011	NIH/ National Heart, Lung and Blood Institute (NHLBI) Workshop “Role of the Lung Microbiome in Health and Disease, invited participant, Bethesda, MD
5/18/2014	Co-chair, ATS Symposium “The Lung Microbiome in 2014: State of the Art and Science”, American Thoracic Society International Conference, San Diego CA.
5/19/2015	Co-chair, “Conflict or peaceful co-existence? The bacterial lung microbiome and host immunity”, Poster Discussion Session American Thoracic Society International Conference, Denver CO.
2014- 2015 2015-2018	World Allergy Organization; Committee on Microbiome and Barrier Disease, Allergy, Immunology and Inflammation Assembly Planning Committee, American Thoracic Society
6/11/2015	Session Chair, “Environment modulation of Asthma Pathobiology”, Aspen Lung Conference (Asthma: Mechanisms to Personalized Medicine)
9/2016	PRACTALL Committee member, American Academy of Asthma, Allergy and Immunology and European Academy of Allergy and Clinical Immunology, “The Role of the Microbiome in the Development of Allergic Disease”
05/21/17	Moderator, Mini-Symposium “The Role of Dysbiosis in Lung Disease”, American Thoracic Society International Conference
05/23/17	Facilitator, “Novel Biomarkers in Lung Disease” Thematic Poster Session
08/16-08/18/17	NIH Workshop “The Human Microbiome: Emerging Themes at the Horizon of the 21st Century” (invited participant; Trans-NIH Microbiome Working Group)
2016-2018	National Academies of Science, Engineering and Medicine (nominated); Committee on Advancing Understanding of the Implications of Environmental-Chemical Interactions with the Human Microbiomes
05/21/18	Panelist, “Should I Stay or Should I Go? Workshop for Members in Transition Committee; American Thoracic Society International Conference
05/22/18	Mini-symposium Co-Chair, “The Microbiome in Chronic Airway Disease”
05/22/19	Moderator, RAPID: Poster Discussion Session. “Host Response to Lung Infections”, American Thoracic Society International Conference
2018-2020	Assembly of Allergy, Immunology and Inflammation (All) Program Committee, American Thoracic Society
2018-2020	Assembly of Allergy, Immunology and Inflammation (All) Microbiome Working Group, American Thoracic Society
2019-present	Microbes in Allergy and Asthma Committee. American Academy of Asthma, Allergy and Immunology.
2020-	Assembly of Allergy, Immunology and Inflammation (All) Nominating Committee, American Thoracic Society
2020	Symposium Co-chair, Microbiome-Immune Interactions in Asthma, American Thoracic Society 2020 International Conference (<i>cancelled due to COVID-19</i>)
2021	Chair, ATS-National Institute of Allergy and Infectious Diseases (NIAID) Joint Workshop; Microbiome, Metabolism and Immunoregulation of Asthma
08/3/2021	Cystic Fibrosis Foundation Detection and Diagnosis Workshop; working group

	member
2022-present	External Scientific Advisory Group, NIH/NIAID CAUSE network (Childhood Asthma in Urban Settings)
May/2022	International Collaborative Asthma Network (ICAN) meeting; invited speaker
6/2023	NIH/NHLBI workshop "Bridging the Gap Between Clinical and Basic Research to Understand COPD Mechanisms". Section Co-Chair.

Extramural Invited Presentations

5/18/2010	Mini-symposium, "Diverse bacterial communities in the airways of patients with sub-optimally controlled asthma" in Molecular and clinical phenotyping of asthma", American Thoracic Society International Conference, New Orleans, LA.
2/11/2011	Visiting scholar, "The respiratory and gut microbiomes: new insights into chronic inflammatory diseases", Hispanic Health Research Seminar Series. University of Texas Brownsville, Brownsville TX
5/16/2011	Oral abstract, "Airway microbiota dynamics during COPD exacerbations". American Thoracic Society International Conference, Denver, CO.
3/27/2012	Speaker, "The airway microbiome in asthma and COPD", 3rd TNO Beneficial Microbes Conference, Noordwijkerhout, Netherlands.
5/19/2012	Postgraduate course faculty; "The -omics era of studying exacerbations: microbiome studies" in "Exacerbations of COPD: measurement, mechanisms, modeling, management, American Thoracic Society International Conference, San Francisco CA. "
1/31/2013	"The airway microbiome in asthma". Global Technology Community Allergy and Respiratory Drug Discovery Conference. San Diego, CA.
6/7/2013	"The airway microbiome in severe asthma", 56th Thomas L. Petty Aspen Lung Conference.
10/28/2013	"The emerging relationship between airway microbiota and chronic respiratory disease: clinical implications". American College of Chest Physicians Annual Congress-Chest Infections Network, Chicago, IL.
12/9/2013	Visiting scholar, "The emerging role of the lung microbiome in asthma and COPD", Arizona Respiratory Center and University of Arizona, Tucson AZ
2/2/2014	Invited speaker, "The airway microbiome in asthma and COPD: recent insights, future directions", Division of Pulmonary/Critical Care Medicine; Washington University, St. Louis MO.
3/1/2014	"The microbiome and asthma", Seminar. American Academy of Asthma, Allergy and Immunology, San Diego, CA
5/5/2014	"The microbiome in airway disease: role in pathogenesis, presentation, and response to treatment". Plenary speaker, Respiratory Drug Delivery International Conference, Fajardo, Puerto Rico.
5/18/2014	Symposium co-chair, "Role of the lung microbiome in health and disease". American Thoracic Society International Conference, San Diego, CA.
5/18/2014	"Bacterial airway microbiome dynamics in COPD exacerbations". Mini-symposium, American Thoracic Society International Conference, San

- Diego, CA.
- 5/19/2014 “The airway microbiome in severe asthma”. Mini-symposium. American Thoracic Society International Conference, San Diego, CA.
- 2/23/2015 “How the airway microbiome influences airway disease”, Symposium. American Academy of Asthma, Allergy and Immunology, Houston, TX.
- 5/5/2015 “The respiratory microbiome in airway health and disease”. The Scientist webinar on “Microbiome-Beyond the Gut.
- 5/20/2015 NHLBI session presenter, “AsthmaNet Microbiome Proof-of-Concept study” American Thoracic Society International Conference, Denver, CO.
- 6/6/2015 “Microbiome and Immunity: relationships and effects in asthma” Postgraduate course faculty, European Academy of Allergy and Clinical Immunology, Barcelona, Spain.
- 9/11/2015 “Asthma and the airway microbiome: relationships to treatments and immune responses”, 3rd Microbiome U.S. Forum, San Diego, CA
- 9/29/2015 “Microbiota and aging”, Symposium. European Respiratory Society Conference, Amsterdam, Netherlands
- 10/14/2015 “Asthma and the microbiome: reincarnating old hypotheses”, Plenary speaker, California Asthma Research Summit, Los Angeles CA
- 11/7/2015 “Microbiome diversity: asthma and allergy risks, treatment implications”, American College of Allergy, Asthma & Immunology, San Antonio TX.
- 12/5/2015 “Next steps for microbiome analysis”, World Allergy Organization Food Allergy & Microbiome Symposium, Miami FL.
- 3/5/2016 “Host-microorganism interactions in chronic respiratory disease”. Symposium, American Academy of Asthma, Allergy and Immunology, Los Angeles CA.
- 4/8/2016 “Asthma Phenotypes: from microbe to the microbiome.” Keynote speaker, MIT-Harvard Microbiome Symposium, Cambridge, MA
- 4/16/2016 Young Physician Scientist Award presentation, American Society for Clinical Investigation annual meeting, Chicago, IL
- 5/16/2016 “Bronchial Bacterial Microbiome: Relationships to Allergy, Asthma, and Inhaled Corticosteroid Treatment”, NHLBI AsthmaNet session (Viruses and Bacteria in Asthma across the Ages), American Thoracic Society International Conference, San Francisco, CA
- 5/17/2016 “The Microbiome in Asthma.” (workshop on Latest Advances In The Lung Microbiome, American Thoracic Society International Conference, San Francisco, CA
- 5/17/2016 “Infections and Exacerbations in Asthma”, (symposium on Infection And Exacerbations: Learning Across Pulmonology), American Thoracic Society International Conference, San Francisco, CA
- 9/6/2016 “What can we learn about pulmonary infections from cystic fibrosis?” Symposium. European Respiratory Society meeting, London, UK
- 10/25/2016 “Alterations of the lung microbiome in asthma”, American College of Chest Physicians annual meeting, Los Angeles, CA
- 11/3/2016 “Microbiome Associations with Chronic Airway Disease- Asthma, COPD,

- Cystic Fibrosis, Bronchiectasis”, National Academy of Science, Engineering and Medicine Committee Presentation.
- 11/15-16/2016 “The Airway Microbiome in Moderate to Severe Asthma”, Airway Microbiome Workshop, NIH/NIAID (invited panelist/speaker)
- 01/18/2017 “The Respiratory Microbiome in Airway Disease: Bacteria and Beyond” Gordon Research Conference on Fungal Immunology, Galveston, TX
- 02/10/2017 “New Insights and Directions to Understand the Role of the Microbiome in Asthma.” Puerto Rico Physiological Society, San Juan PR
- 03/03/2017 American Academy of Asthma, Allergy and Immunology Conference
 (i) “The Relevance of Age in Clinical Trials to Study the Microbiome”, Course 1006: NHLBI: Personalized Medicine Approaches Developed from NIH Asthma Clinical Trials.
 (ii) “Understanding How the Airway Microbiome Can Influence Asthma Severity”, Course 1210: Omics in Allergy: Understanding How Big Data are Advancing Scientific Discovery and Clinical Care.
- 05/21-24/2017 American Thoracic Society International Conference, Washington DC
 (i) “Lung Microbiota Patterns and Immune Responses in COPD”, NHLBI Phenotyping in the Subpopulations and Intermediate Outcome Measures in COPD (SPIROMICS) Study
 (ii) “Microbiome Associations with Adult Asthma Phenotypes”, Science and Innovation Center Rising Star of Research award presentation
 (iii) Clinical Year in Review -“The Host-Microbiome in Lung Disease”.
- 06/19/2017 European Academy of Allergy and Clinical Immunology Conference, Helsinki, Finland. EAACI-AAAAI PRACTALL Symposium. “Role of the Microbiome in asthma: clinical studies, challenges, needs.”
- 07/2/2017 California Society of Allergy, Asthma and Immunology (CSAAI) meeting, Huntington Beach, CA
 1. “The Respiratory Microbiome, from Asthma to COPD”
 2. “Factors Influencing the Respiratory Microbiome—Knowns and Unknowns”
- 07/18/2017 Aspen Allergy Conference, “The Microbiome and Airways Disease,
 07/28/2017 COPD10USA, Chicago IL. “The Microbiome in COPD Exacerbations”,
 11/17/2017 Johns Hopkins University Asthma and Allergy Center Symposium; “Host Microbiomes and Asthma Phenotype”
- 01/27/2018 Winter Immunology School, 16th European Academy of Allergy and Clinical Immunology, Saas-Fee, Switzerland. “Microbiome-Host Interactions in the Lung”
- 03/02/2018 American Academy of Asthma, Allergy and Immunology Conference, “Microbiome 101: Essential Terms, Research Methodologies”
- 04/18/2018 New York University Pulmonary Grand Rounds, “Asthma Phenotypes and the Human Microbiome: Next Frontiers”
- 04/25/2018 University of Louisville Internal Medicine Grand Rounds, “Human Microbiomes and Asthma Phenotype”
- 10/20/2018 Bulgarian Respiratory Society meeting (two presentations)
 (i) “Lung microbiome in asthma”

(ii) "Lung microbiome in COPD"

02/22/2019 American Academy of Asthma, Allergy and Immunology (AAAAI) Conference, "Environmental Exposures: The Gut Microbiome and the Development of Allergic Diseases"

05/18/2019 American Thoracic Society International Conference. Symposium. "Multi-System of microbiome-immune interactions in adult asthma."

06/04/2019 European Academy of Allergy and Clinical Immunology Conference (Lisbon, Portugal). Year in Review: Asthma. Symposium. "Microbiome and its effect on the immune responses in asthma".

10/2019 European Respiratory Society International Congress, Madrid Spain. "Lung microbiota associations with clinical features of COPD in the SPIROMICS cohort".

2/18/2020 Gordon Research Conference: Biology of acute respiratory infections, February 2020, Galveston, TX. "Multi-system views of microbiota-immune interactions in asthma and COPD"

3/6/2020 Big Sky Pulmonary Conference, Dept of Public Health, Butte, MT "Microbiome influences in asthma: from environment to clinical phenotype"

3/13/2020 American Academy of Asthma, Allergy and Immunology Conference; The Microbiome and Atopic Diseases: Target for Prevention; The Microbiome: What Is It and How Do We Investigate It? (*cancelled due to COVID-19*)

09/24/2020 Avison Biomedical Symposium, Yongsei University College of Medicine; Seoul, South Korea. (*cancelled due to COVID-19 pandemic*)

03/18/2021 Yale Division of Pulmonary, Critical Care and Sleep Medicine Research Conference. "Host-Microbiome Endotyping and Asthma/COPD outcomes"

05/16/2021 Post-graduate course, American Thoracic Society International Conference (virtual); COPD 2020: STATE OF THE ART; Role of Microbiome in COPD-Evolving Knowledge

05/16/2021 ATS Science & Innovation Center; "Cross-Disciplinary Strategies to dissect host-microbiome interactions in clinical studies of asthma and COPD" (in Microbiome and Medicine: New multidisciplinary approaches to complicated infections in cystic fibrosis, obstructive lung disease, and critical illness)

08/02/2021 Department of Microbiology/Immunology; University of Michigan; Joint faculty seminar. "Host-Microbiota Interactions in Asthma and COPD through a Reverse Translational Lens"

10/10/2021 Allergy, Asthma and Immunology Society of South Carolina, Charleston, SC "The microbiome in allergic airway disease: an ecological view of microbial-host interactions in asthma

10/19/2021 CFF Detection & Diagnosis Workshop: "What can learn from microbiological detection methods in other lung conditions (asthma and COPD)"

03/22/2022 Society of Toxicology Annual Conference; "Translational Approaches for Toxicology, the Microbiome, and Human Health"; (CE course: Leading Edge Microbiome Methods for Toxicological Applications), San Diego CA

05/2022 International Collaborative Asthma Network (ICAN); member/speaker; San Francisco, CA

07/2022 Joint Agency Microbiome (JAM) Quarterly Seminar Series. (JAM collaboration among FDA, NIH, NIST and USDA). "Translational approaches for studying the lung microbiome in chronic respiratory disease"

11/2022 New South Wales Asthma/Airway Disease Conference (NAME); "Microbiome-Host Interactions in Asthma and COPD through a Reverse Translational Lens"; Sydney, Australia

03/07/2023 Visiting Professor, University of Wisconsin-Madison, Pulmonary/Critical Care Medicine

04/11/2023 US Department of Defense Tri-Service Microbiome Consortium (TSMC) Topical Meeting "*Beyond Gut Bacteria*".

04/20/2023 Philippine College of Chest Physicians (PCCP); Council on Lung Infections inFACTivity 2023 conference." The Lung Microbiome: significant factor in lung disease?"

05/19-20/2023 Translational Summit on Asthma Across Species; San Francisco, CA; symposium supported by National Center for Advancing Translational Science (NIH/NCATS)

06/5/2023 Brown Investigators in Respiratory Disease (BIRDS) seminar. Microbiome-Host Interactions and Asthma/COPD Phenotype.

06/8/2023 Aspen Lung Conference: Asthma: Molecules, Phenotypes, Therapies and Gaps. State-of-the-art Roger S. Mitchell Memorial Lecture; "Impact of Microbiome on Asthma Phenotypes and Disease Endotypes".

Grants

Active/Recently completed

U01TR004066 (Role: MPI)

(Fan, Gudjonsson, Gunnerson, **Y. Huang**, Mahajan).

NIH/NCATS

High performance wearable body odor sensor arrays for disease detection and monitoring
8/10/2022- 5/31/2027. \$5,505,413 (total)

1R01AI129958-01A1 (Role: PI)

NIH/NIAID

Sputum Microbial Markers of Type 2-Low Asthma

06/2017-05/2023 (NCE). \$3,565,422 (total)

La Jolla Institute for Immunology (Role: PI, subcontract)

Sputum Immune Cell Analysis in Severe Asthma

01/2023-7/2023 \$17,514 (total)

Regeneron R668-AS-2095 (Role: PI)

Effects of Interleukin- 4R-alpha Inhibition on Respiratory Microbiome and Immunologic Correlates in Severe Asthma

12/2021-12/2024 \$544,746 (total)

5U01HL137880. (Role: Co-I)

NIH/NHLBI

Subpopulations and Intermediate Outcome Measures in COPD Study (SPIROMICS II):
Biological underpinnings of COPD heterogeneity and progression.

07/2017-06/2023. (NCE) \$3,573,079 (total)

COPD Foundation/SPIROMICS (Role: MPI; Y. Huang, V. Ortega, S. Christenson)

Epigenetic and Microbial Influences on Epithelial Transcriptional Responses in COPD.

07/2019-04/30/2025. \$86,448 (total)

COPD Foundation/SPIROMICS II – Bridge (Role: PI)

Gut microbiome - Stool analysis pilot in SPIROMICS II

12/2021- 04/30/2025 \$16,300

1R01AI129958-05S1 (Role: PI)

NIH/NIAID

Diversity Supplement - Sputum Microbial Markers of Type 2-Low Asthma

09/10/2021-09/30/2022 \$79,662 (total)

Nesbitt Grant Program G012573 (Role: PI)

Gift for cystic fibrosis related research at University of Michigan

11/1/2017-10/31/2027 \$30,688

Pending/re-submission

Determining functional pathways of airway and gut microbiota influence in adults with Type 2-
low asthma through multi-omics

Role: MPI (Huang, Li)

NIH/NHLBI R01HL164422

Role of the Microbiome and Metabolome in Early COPD

Role: MPI (Huang, Stringer)

NIH R01AI175260

Functional microbiome-immune interactions in chronic asthma: role in clinical
outcomes and treatment response

Role: PI

Completed

1R01HL121774-01S1 (G. Huffnagle)

Functional Analysis of the Pulmonary Microbiome

Role: supplement PI

Department of Defense;

LAMP: The LAM Microbiome Project. consortium collaborator with Brigham and Women's Hospital (PI: El-Chemaly)
Role: Sub-Contract PI

F32 HL150954
Sputum Microbial-Immune Relationships to Clinical Phenotype in Asthma and COPD
Role: primary mentor (PI: Kozik)

UMMS-Chang Gung Memorial Hospital Joint Research Program
Impacts of Early-life Greenness and Air Pollution Exposures on Childhood Asthma and Related Phenotypes: Examine Potential Implications of Epigenomics
Role: Co-PI
09/2018-04/2020

1R03HL138310 (PI: Y. Huang)
Corticosteroid effects on bacterial behaviors in the respiratory tract
07/2017-06/2019.

MRC2 Pilot/Feasibility Grant Program (PI: Y. Huang)
Metabolomics Studies to Understand Type 2-Low Inflammation and Airway Dysbiosis in Asthma.
07/01/2017-06/30/2018.

Michigan Institute for Clinical and Health Research Pilot Grant (PI: Y. Huang)
Microbiome Phenotyping in Adult Asthma
02/01/2016-1/31/2018.

NIH/NHLBI AsthmaNet. Airway Microbiome in Asthma: Relationships to Asthma Phenotype and Inhaled Corticosteroids, POC study.
Role: Co-PI

NIH/NHLBI, K23 HL105572. Airway Microbial Community Structure and Function in Chronic Asthma. 08/26/2011 - 8/31/2016. Role: PI

Cystic Fibrosis Foundation Program for Adult Care Excellence (HUANG11AC0). 07/01/2011 - 06/30/2014. Role: PI

Genentech (IIS). Airway Microbiome in Severe Asthma. 08/01/2011 -09/30/2012. Role: Co-I.

University of California Tobacco-related Disease Research Program. 16S rRNA Phylochip analysis of Bacterial Communities in COPD (#17FT-0040). 07/01/2008 - 06/30/2010. Role: PI

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