

# Jeffrey C. Horowitz, M.D., ATSF, FCCP

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## Current Position(s)

Professor of Medicine, Department of Internal Medicine  
Division Director, Pulmonary, Critical Care, and Sleep Medicine  
The Ohio State University Wexner Medical Center  
Columbus, OH

## Education

Postdoctoral Research Fellow, University of Michigan, Ann Arbor, IL	2004-2006
Fellowship, Pulmonary & Critical Care, University of Michigan, Ann Arbor, MI	2001-2004
Residency, Rush Presbyterian-St. Luke's Medical Center, Chicago, IL	1999-2001
Internship, Internal Medicine, Rush Presbyterian-St. Luke's Medical Center, Chicago, IL	1998-1999
M.D., Rush Medical College, Chicago, IL	1994-1998
B.S. in Biology (magna cum laude), Syracuse University, Syracuse, NY	1990-1993

## Academic Appointments

Endowed Professor of Pulmonary Research College of Medicine The Ohio State University	2022-Present
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Columbus, OH Professor of Medicine Department of Internal Medicine The Ohio State University Columbus, OH	2020-Present
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Faculty Member Biomedical Sciences Graduate Program The Ohio State University	2022-Present
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Adjunct Associate Professor Department of Internal Medicine University of Michigan Ann Arbor, MI	2020-Present
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Associate Professor Department of Internal Medicine University of Michigan Ann Arbor, MI	2014-2019
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Assistant Professor Department of Internal Medicine University of Michigan Ann Arbor, MI	2006-2014
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Clinical Lecturer Department of Internal Medicine University of Michigan Ann Arbor, MI	2004-2006
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## Professional Positions and Experience

Division Director, Pulmonary Critical Care and Sleep Medicine The Ohio State University Wexner Medical Center	2020-Present
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Columbus, OH

Interim Director of Lung Research 2020-2021  
Davis Heart and Lung Research Institute  
The Ohio State University Wexner Medical Center  
Columbus, OH

Director, Scientific Trunk Respiratory Sequence 2016-2019  
University of Michigan Medical School  
Ann Arbor, MI

Director, M2 Respiratory Pathophysiology Sequence 2015-2017  
University of Michigan Medical School  
Ann Arbor, MI

### **Certification and Licensure**

American Red Cross ACLS/BLS	1998-Present
National Board of Internal Medicine #206494	2001-2011
National Board of Medical Examiners	2001-Present
Medical License, State of Michigan	2001-2020
Controlled Substance, State of Michigan	2001-2021
American Board of Internal Medicine, Pulmonary Disease #206494	2003-2023
American Board of Internal Medicine, Critical Care Medicine #206494	2004-2024
DEA Registration, State of Michigan	2012-2021
Medical License, State of Ohio	2019-2020
DEA Registration, State of Ohio	

### **Professional Development**

Leadership Development for Physicians in Academic Health Centers, Harvard TH Chan School of Public Health	2021
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### **Professional Memberships and Activities**

Member, Association of Pulmonary, Critical Care and Sleep Division Directors	2020-Present
Member, Asian Pacific Society of Respirology	2016-Present
Member, American College of Chest Physicians	2003-Present
Member, American Thoracic Society	2001-Present
Member, Alpha Omega Alpha	1998

### **Editorial Board Appointments**

Member, Respirology: The Official Journal of the Asian Pacific Society	2019-Present
Member, American Journal of Respiratory Cell and Molecular Biology	2017-Present
Deputy Editor, Respirology, The Official Journal of the Asian Pacific Society	2017-2019
Associate Editor, Respirology, The Official Journal of the Asian Pacific Society	2016-2017
Member, ISRN Pathology	2011-2014
Member, American Journal of Pathology	2009-2021

### Grant Reviews: International Agencies and Foundation Awards

Biotechnology and Biological Sciences Research Council (Ad Hoc)	2021
Rosetrees Trust Biomedical Research Award (Ad Hoc)	2019
Irish Health Research Board/Medical Research Charities Group (HRB/MRCG)	2014
Joint Funding Scheme Research Grants (Ad Hoc)	
German-Israeli Foundation for Scientific Research and Development (Ad Hoc)	2014
Chest Foundation and the Pulmonary Fibrosis Foundation Clinical Research Grant in Pulmonary Fibrosis (Ad Hoc)	2014 - 2017
Israeli Science Foundation Individual Research Grant	2013
OneBreath/Pulmonary Fibrosis Foundation (Ad Hoc)	2013
MPN Research Foundation, Myelofibrosis Challenge Research Grants (Ad Hoc)	2012-2013
U.S.-Israel Binational Science Foundation (Ad Hoc)	2012

The Welcome Trust Research Career Development Fellowship	2007
<u>Grant Reviews: US Federal Funding (NIH, VA, DoD)</u>	
<b>Co-Chair:</b> NIH/NHLBI: Respiratory Sciences Special Emphasis Panel-CVRS-H 03 M	2022
NIH/NHLBI: Small Grant Program for K01/K08/K23 Recipients (Ad Hoc)	2020
NIH/NHLBI: Bold New Bioengineering Methods and Approaches for Heart, Lung, Blood and Sleep Disorders and Diseases (R21) (Ad Hoc)	2018
NIH/NHLBI: Lung Injury, Repair and Remodeling (LIRR) Study Section (Ad Hoc)	2018
Department of Defense Congressionally Directed Medical Research Program (CDMRP) Pulmonary Fibrosis pre-application peer review panel (Ad Hoc)	2018
Department of Defense Congressionally Directed Medical Research Program (CDMRP) Pulmonary Fibrosis pre-application peer review panel. (Ad Hoc)	2017
NIH/NHLBI: Small Grant Program for NHLBI K01/K08/K23 recipients. (Ad Hoc)	2016
NIH/NHLBI: Lung Injury, Repair and Remodeling (LIRR) Study Section (Ad Hoc)	2016
Department of Defense Congressionally Directed Medical Research Program (CDMRP) Pulmonary Fibrosis pre-application peer review panel. (Ad Hoc)	2016
<b>Co-chair:</b> NIH ZRG1 CB-P (55) R - PAR-14-022: Juvenile Protective Factors and their Effects on Aging (Ad Hoc)	2015
Pulmonary Disease (PULM) panel: Department of Veterans Affairs (VA) Joint Biomedical Laboratory Research and Development and Clinical Science Research and Development Services Scientific Merit Review Board ( <b>permanent member</b> )	2015-2019
Veterans Affairs Health Administration Office of Research and Development Pulmonary Disease (PULM) Panel (June/December) (Ad Hoc)	2014
<b>Co-Chair:</b> NIH ZRG1 CB-Z (55) Study Section: R-03 Juvenile Protective Factors and Their Effects on Aging (PAR-14-022) (Ad Hoc)	2014
Veterans Affairs, Veterans Health Administration Office of Research and Development Pulmonary Disease (PULM) Panel (Ad Hoc)	2013
<u>Grant Reviews: Institutional Funding</u>	
Dean's Discovery Grants Program, The Ohio State University	2021
Michigan Institute for Collaborative Health and Research Pilot and Grant Program (Ad Hoc)	2015
MICH-R Postdoctoral Translational Scholars Program (Ad Hoc)	2014
Michigan Institute for Collaborative Health and Research Pilot and Collaborative Grant for Translational Research (Ad Hoc)	2007
<u>Journal Reviewer</u>	
Aging	2021
Chapter Reviewer for "BH3-mimetic Drugs for Anti-fibrotic Therapy" in "Anti-Fibrotic Drug Discovery". Published by the Royal Society of Chemistry in London. (Ad Hoc)	2019
International Journal of Biochemistry and Cell Biology (Ad Hoc)	2019-Present
Nature Communications (Ad Hoc)	2018-Present
Respirology (Ad Hoc)	2016-Present
Science Signaling (Ad Hoc)	2015-Present
Respiratory Medicine (Ad Hoc)	2015-Present
Disease Models and Mechanisms (Ad Hoc)	2015-Present
Scientific Reports (Ad Hoc)	2014-Present
Expert Opinion on Emerging Drugs (Ad Hoc)	2014-Present
Experimental Lung Research (Ad Hoc)	2014-Present
Experimental Gerontology	2014-Present
OncoTargets and Therapy (Ad Hoc)	2013-Present
BioMed Research International (Ad Hoc)	2013-Present
PLoS ONE (Ad Hoc)	2012-Present
Molecules (Ad Hoc)	2012-Present
Laboratory Investigation (Ad Hoc)	2012-Present
Journal of Applied Physiology (Ad Hoc)	2012-Present
Journal of Immunology (Ad Hoc)	2011-Present
Clinical Investigation (Ad Hoc)	2011-Present
Thorax (Ad Hoc)	2010-Present

Connective Tissue Research (Ad Hoc)	2010-Present
BMC Pulmonary Medicine (Ad Hoc)	2010-Present
Arthritis and Rheumatism (Ad Hoc)	2010-Present
Apoptosis (Ad Hoc)	2010-Present
Journal of Biological Chemistry (Ad Hoc)	2009-Present
Hospital Physician (Ad Hoc)	2009-Present
European Respiratory Journal (Ad Hoc)	2009-Present
Chest (Ad Hoc)	2009-Present
BioDrugs (Ad Hoc)	2009-Present
American Journal of Respiratory Cell and Molecular Biology (Ad Hoc)	2009-Present
Virchows Archiv (Ad Hoc)	2008-Present
Thrombosis and Haemostasis (Ad Hoc)	2008-Present
Respiratory Care (Ad Hoc)	2008-Present
Lung (Ad Hoc)	2008-Present
Journal of Translational Medicine (Ad Hoc)	2008-Present
Expert Review of Respiratory Medicine (Ad Hoc)	2008-Present
Expert Opinion on Therapeutic Targets (Ad Hoc)	2008-Present
Proceedings of the American Thoracic Society (Ad Hoc)	2007-Present
Journal of Respiratory Diseases (Ad Hoc)	2007-Present
Journal of Cellular Biochemistry (Ad Hoc)	2007-Present
American Journal of Respiratory and Critical Care Medicine (Ad Hoc)	2007-Present
Journal of Pathology (Ad Hoc)	2006-Present
Respiratory Research (Ad Hoc)	2005-Present
American Journal of Physiology - Lung Cellular and Molecular Physiology (Ad Hoc)	2005-Present
American Journal of Physiology - Cell Physiology	2005-Present
American Journal of Pathology (Ad Hoc)	2005-Present

## **Committee Assignments and Administrative Services**

### International

Program Committee, Allergy, Immunology and Infection Assembly of The American Thoracic Society	2022-Present
Awards Committee of the American Thoracic Society, Member	2019-Present
Planning Committee, Respiratory Cell and Molecular Biology Assembly of The American Thoracic Society, ( <b>Chair 2018-2021</b> )	2018-Present
Executive Committee, Respiratory Cell and Molecular Biology Assembly of the American Thoracic Society, Member	2018-Present
Scientific Committee: International Colloquium of Lung and Airway Fibrosis (ICLAF) 2020, Member	2018-2020
Fellows Track Symposium Pillar Chair Selection Committee, American Thoracic Society, Member	2017
Members in Training and Transition Committee, American Thoracic Society, Member	2014-2019
Web Editorial Committee, American Thoracic Society, Member	2012-2015
Program Committee, Respiratory Cell and Molecular Biology Assembly of The American Thoracic Society, Member	2012-2015
Executive Committee, Respiratory Cell and Molecular Biology Assembly of the American Thoracic Society, Member	2012-2015
Website Committee, Respiratory Cell and Molecular Biology Assembly of The American Thoracic Society, Member ( <b>Chair 2012-2015</b> )	2011-2018

### National

Interstitial and Diffuse Lung Disease Network Steering Committee, American College of Chest Physicians, Member	2010-2014
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### Institutional: The Ohio State University

Critical Care Quality Management Committee	2021-Present
Dean's Faculty Remote Work Task Force	2021
Medical Critical Care Operations Council	2020-Present
COVID-19 ICU Surge Plan Committee, The Ohio State University Wexner Medical Center	2020-Present
Medical Staff Advisory Council, The James Cancer Hospital, The Ohio State University	2020-Present
Board of Managers, Dept. of Internal Medicine, Ohio State University Physicians Inc.	2020-Present

Finance Committee, Department of Internal Medicine, The Ohio State University 2020-Present

Institutional: University of Michigan

Visiting Professors Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Chair 2018-2019  
 Fellow Research Training Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Member 2014-2019  
 Faculty Recruitment Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Member 2014-2019  
 Clinical Competency Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Chair (2017-2019), Vice Chair (2015-2017) 2014-2019  
 Physician-Scientist Program, Department of Internal Medicine, University of Michigan, Interviewer 2014-2018  
 University of Michigan Internal Medicine Residency Program, Interviewer 2017-2018  
 Fellowship Education Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Member 2006-2014  
 Clinical Training Committee, Division of Pulmonary and Critical Care Medicine, University of Michigan, Member 2004-2006  
 Admissions Committee, Rush Medical College, Closed File Interviewer 1998-2001  
 Exam Review Committee, Rush Medical College, Member 1995-1996

Dissertation Committees

Joshua White, Ph.D. Candidate, Biomedical Engineering, "Aqueous Two-Phase Systems for Next-Generation Biotechnological Assays", University of Michigan, Biomedical Engineering, Committee Member 2011

**Educational Activities**

International

Cellular IAP (cIAP) Family Proteins Regulate TGF- $\beta$ 1 Induced Metabolic Reprogramming of Lung Fibroblasts" ePoster Presentation, American Thoracic Society International Conference (Virtual) 2021  
 Fellow-to-Faculty Bootcamp (speaker and small-group session leader), American Thoracic Society 2019  
 "Urokinase Plasminogen Activator Overexpression Reverses Established Lung Fibrosis." Poster Discussion. International Colloquium of Lung and Airway Fibrosis, Pacific Grove CA. 2018  
 "Inhibition of MRTF/SRF Signaling Decreases Lung Fibrosis and Promotes Fibroblast/Myofibroblast Apoptosis" Poster Discussion, American Thoracic Society International Conference, Denver CO 2015  
 Pharmacologic Inhibition of SRF/MRTF-A Signaling Enhances Fibroblast Apoptosis and Promotes the Resolution of Lung Fibrosis" Poster Presentation, International Colloquium of Lung and Airway Fibrosis, Mt. Tremblanc, Canada 2014  
 The Somatomedin B Binding Function of Plasminogen Activator Inhibitor-1 Promotes the Accumulation of Exudate Macrophages and Worsens Pulmonary Fibrosis Following Targeted Type II Alveolar Epithelial Cell Injury 2014  
 "Delayed Lung-Specific uPA Overexpression Enhances The Resolution Of Lung Fibrosis" Thematic Poster Presentation. American Thoracic Society International Conference; Philadelphia PA 2013  
 "Expression Of Inhibitor Of Apoptosis Proteins In Normal And Fibrotic Lung Fibroblasts" Thematic Poster Presentation. American Thoracic Society International Conference; San Francisco CA 2012  
 "Regulation of Mesenchymal Cell Fate By Extracellular Matrix Stiffness" Thematic Poster Presentation. American Thoracic Society International Conference; New Orleans LA 2010  
 "Endothelin-1 Mediates TGF- $\beta$ 1 Activation of AKT and Resistance to Apoptosis in Lung Fibroblasts" Thematic Poster Presentation. American Thoracic Society International Conference; Toronto, Canada 2008  
 "TGF- $\beta$ 1 inhibition of plasminogen activation regulates fibroblast apoptosis" Poster Discussion. American Thoracic Society International Conference; San Francisco, CA 2007

"Constitutive activation of pro-survival signaling in mesenchymal cells from patients with non-resolving ARDS." Poster Discussion. American Thoracic Society International Conference; San Diego, CA 2006

"Activation of FAK and PKB/Akt are independently regulated by TGF- $\beta$ 1 and cooperatively promote myofibroblast survival." Poster Discussion. American Thoracic Society International Conference; San Diego, CA 2005

"Activation of the pro-survival PI3K/Akt pathway by TGF- $\beta$ 1 in human lung mesenchymal cells is mediated by a p38 MAPK-dependent autocrine pathway." Poster Discussion. American Thoracic Society International Conference; Orlando, FL 2004

"Transforming growth factor- $\beta$ 1 inhibits apoptosis of alveolar mesenchymal cells by activation of the P13K-Akt pathway." Thematic Poster Presentation, American Thoracic Society International Conference, Seattle, WA 2003

National

"Regulation of Fas expression and signal propagation in lung fibroblasts" Poster Presentation. Gordon Conference on Lung Development, Injury and Repair 2013

"Mechanoregulation of Mesenchymal Cell Survival in Lung Fibrogenesis" Poster Presentation, American Geriatrics Society Meeting, Orlando FL 2010

"Myofibroblast Fate Determination by Extracellular Matrix Interactions" Poster Presentation, American Geriatrics Society Meeting, Chicago, IL 2009

"Extracellular Matrix Regulation of Mesenchymal Cell Fate" Poster Presentation. T. Franklin Williams Alumni Scholars Meeting; Austin, TX 2009

Regional

"Activation of the pro-survival PI3K/Akt pathway by TGF- $\beta$ 1 in human lung mesenchymal cells is mediated by a p38 MAPK dependent autocrine pathway." Poster Presentation. Michigan Thoracic Society Meeting. Lansing, MI. 2004

"Transforming growth factor- $\beta$ 1 inhibits apoptosis of alveolar mesenchymal cells by activation of the PI3K-Akt pathway." Poster Presentation. Michigan Thoracic Society Meeting. Lansing, MI 2003

Institutional: The Ohio State University

Discussant: Physician-Scientist Career Development, Pulmonary Fellows Conference 2021

Inpatient Service: Medical ICU and Consultations  $\approx$  6-8 weeks/year 2020-Present

Outpatient Pulmonary Fellow's Clinic Staff  $\approx$  8 clinics/year (2-4 fellows/clinic) 2021-Present

Outpatient Pulmonary Clinic (Rotating Internal Medicine residents, 12-24 clinics/year) 2021-Present

Institutional: University of Michigan

Inpatient Teaching Services (Medical ICU and Consultations)  $\approx$  8 weeks/year 2004-2019

Outpatient Pulmonary Fellow's Clinic Staff  $\approx$  12 clinics/year (3-4 fellows/clinic) 2015-2019

Discussant: Morning Report, Ann Arbor Veterans Administration 2019

Lecturer: "Eosinophilic Pneumonias" Internal Medicine Noon Conference, Ann Arbor Veterans Administration 2019

Transitions to Clinical Clerkships: Dyspnea (4 hours) 2019

Lecturer: "Chronic Obstructive Pulmonary Disease" Internal Medicine Noon Conference, Ann Arbor Veterans Administration 2019

Lecturer: "Chronic Obstructive Lung Disease" M1 Scientific Trunk Respiratory Sequence 2018

Small Group Facilitator: M1 Scientific Trunk Respiratory Sequence (3-2 hour sessions) 2018

Transitions to Clinical Clerkships: Dyspnea (4 hours) 2018

"Myofibroblast Fate and Fibrosis: There and Back Again" Pulmonary Division Research Seminar 2018

Transitions to Clinical Clerkships: Shock (4 hours) 2018

Discussant: Internal Medicine and Medicine/Pediatrics House Officer-2 Career Development Retreat 2018

Lecturer: "Eosinophilic Pneumonias" Pulmonary Division Core Conference 2018

Transitions to Clinical Clerkships: Shock (4 hours) 2017

Lecturer: "Chronic Obstructive Lung Disease" M1 Scientific Trunk Respiratory Sequence 2017

Small Group Facilitator: M1 Scientific Trunk Respiratory Sequence (3-2 hour sessions) 2017

Transitions To Clinical Clerkships: Dyspnea (4 hours)	2017
Lecturer: "Chronic Obstructive Pulmonary Disease" Internal Medicine Noon Conference, Ann Arbor Veterans Administration	2017
Lecturer: "The Fundamentals of Chronic Obstructive Pulmonary Disease" University of Michigan Nurse Practitioner Students	2017
Lecturer: "The Basics of Pulmonary Function Testing" University of Michigan Nurse Practitioner Students	2017
Transition To Clerkships (Pilot Program Faculty: 8 hours)	2017
Discussant, Department of Internal Medicine Morning Report	2016
Lecturer: "Chronic Obstructive Lung Disease" M1 Fused Pulmonary Sequence	2016
Small Group Facilitator: M1 Fused Respiratory Sequence (3- two hour sessions)	2016
Discussant, Department of Internal Medicine Morning Report	2016
Lecturer: "Chronic Obstructive Lung Disease" M2 core Respiratory Pathophysiology	2016
Discussant, Department of Internal Medicine Morning Report	2016
Small Group Facilitator: M2 Respiratory Pathophysiology (two- 2 hr. sessions)	2016
Discussant: Department of Medicine House Officer-2 Career Development Retreat	2016
Discussant, Department of Internal Medicine Morning Report	2016
Lecturer: "The Fundamentals of Chronic Obstructive Pulmonary Disease" University of Michigan Nurse Practitioner Students	2016
Lecturer: "The Basics of Pulmonary Function Testing" University of Michigan Nurse Practitioner Students	2016
Group Leader: M1 Respiratory Physiology Small Group (2 hour session)	2015
"Fibroblast Apoptosis: The Key to Normal or Fibrotic Repair." Pulmonary Division Research Seminar.	2015
Lecturer: "Chronic Obstructive Lung Disease" M2 core Respiratory Pathophysiology	2015
Small Group Facilitator: M2 Respiratory Pathophysiology (two- 2 hr. session)	2015
Discussant: Department of Medicine House Officer-2 Career Development Retreat	2015
Discussant, Department of Internal Medicine Morning Report	2015
Discussant, Department of Internal Medicine Morning Report	2015
Lecturer: "Interpretation of Pulmonary Function Testing" University of Michigan Nurse Practitioner Program	2015
Lecturer: "The Fundamentals of Chronic Obstructive Pulmonary Disease" University of Michigan Nurse Practitioner Program	2015
Lecturer: "Chronic Obstructive Lung Disease" M2 core Respiratory Pathophysiology	2014
Small Group Facilitator: M2 Respiratory Pathophysiology (one 2 hr. session)	2014
Lecturer: "The Phantom Menace: Myofibroblast Survival in Lung Fibrosis" Pulmonary Division Research Seminar	2014
Eosinophilic Lung Disease, Part I: The Airway	2014
Discussant: Department of Family Medicine, Morbidity and Mortality Conference	2013
M2 Pulmonary Pathophysiology Small Group Facilitator (8 hours)	2013
"Resolving Fibrosis: Matrix Proteolysis and Myofibroblast Apoptosis" Fibrosis Working Group Seminar	2013
"Regulation of Fibroblast Apoptosis: A Potential Therapeutic Strategy in Pulmonary Fibrosis" Pulmonary Division Research Seminar	2012
M2 Respiratory Pathophysiology Group Leader (two 2 hours sessions)	2012
"The Spectrum of Aspergillus Lung Disease" Pulmonary Division Case Conference	2012
"Eosinophilic Airway Diseases" Pulmonary Division Core Conference	2012
M2 Respiratory Pathophysiology Group Leader (4 hours in 2 sessions)	2011
"Interstitial Lung Disease" M2 Core Respiratory Pathophysiology Lecture	2011
"Myofibroblast Accumulation in Fibrosis: There's More than Proliferation" Pulmonary Division Research Seminar	2011
"Uncommon Diffuse ILDs" Pulmonary Division Core Conference	2011
M2 Respiratory Pathophysiology Group Leader (2 hours)	2010
"Interstitial Lung Disease" M2 Core Respiratory Pathophysiology Lecture	2010
"Eosinophilic Lung Syndromes" Pulmonary Division Core Conference	2010
M2 Respiratory Pathophysiology Group Leader (2 hours)	2009
M1 Respiratory Physiology Group Leader (2 hours)	2009
"Mesenchymal Cell Fate: A Switch Between Physiologic and Pathologic Repair", Pulmonary Division Research Seminar	2009
"COPD: Disease Impact and Management Strategies", Division of Geriatrics	2009

Clinical Conference	
M1 Respiratory Physiology Group Leader (1 hour)	2008
"Mesenchymal Cell Fate in Lung Injury and Repair", Pulmonary Division	2008
Research Seminar	
"Eosinophilic Lung Disease", Pulmonary Division Core Curriculum Conference	2008
"Eosinophilic Lung Disease", Rheumatology Division Core Curriculum Conference	2008
Ambulatory Resident's Morning Report (1 hour session)	2007
M1 "Cardiac Classics" Physical Exam Instruction (5 hours)	2006
"Eosinophilic Pneumonias and More", Pulmonary Division Clinical Conference	2006
M4 Comprehensive Clinical Assessment Retreat (5 hours)	2006
Ambulatory Resident's Morning Report (3-1 hr. sessions)	2006
Facilitator, Pulmonary Fellows Journal Club (2 1 hr. sessions)	2006
"Independent Regulation of Myofibroblast Survival and Differentiation by TGF- $\beta$ ", Pulmonary Division Research Seminar	2006
"Respiratory Failure", medical pulmonary inpatient unit nursing in-service day	2005
M2 Core Respiratory Pathophysiology Lecture "Pulmonary Function Testing"	2005
"The role of TGF- $\beta$ 1 and Smad3 signaling in murine emphysema", Pulmonary Division Basic Science Journal Club	2005
"Mesenchymal cell survival signaling by TGF- $\beta$ 1", Pulmonary Division Research Seminar	2005
Ambulatory Resident's Morning Report (2 1-hr sessions/year)	2005
M2 Respiratory Pathophysiology Group Leader (2 - 2 hr sessions/year)	2005
Attending Physician, University of Michigan Inpatient Pulmonary Medicine Service and Medical Intensive Care Unit (6-8 weeks/year)	2004-2005
"TGF- $\beta$ 1 mediated anti-apoptotic signaling in human lung fibroblasts", Pulmonary Division Research Seminar	2004-2019
"Hyperglycemia in critical illness", Pulmonary Division Clinical Conference	2004
"Refractory asthma", Pulmonary Clinical Conference	2003
"TGF- $\beta$ 1 signaling through Gadd45 $\beta$ ", Pulmonary Division Basic Science Journal Club	2003
"TGF- $\beta$ 1 mediated pro-survival signaling in human lung fibroblasts", Pulmonary Division Research Seminar	2003
M1 Respiratory Physiology Small Group Session Leader, University of Michigan	2003-2007
"Lung volume reduction surgery: lessons from the NETT", Pulmonary Division Journal Club	2003
"Predicting mortality in patients with cystic fibrosis", Pulmonary Division Clinical Journal Club	2003
"Transforming growth factor- $\beta$ 1 inhibits apoptosis of alveolar mesenchymal cells by activation of the PI3K-Akt pathway", presented at the University of Michigan Research Symposium	2003
"Update in primary pulmonary hypertension", Pulmonary Division Clinical	2003
"The role of $\beta$ 1-integrin signaling in fibroblast apoptosis", Pulmonary Division Basic Science Journal Club	2002
"Inhaled steroids in COPD", Pulmonary Division Clinical Journal Club	2002
"Fibroproliferative ARDS: regulation of fibroblast apoptosis", Pulmonary Division Research Seminar	2002
Rush Medical College Dean's Teaching Fellowship	1997-1998
Substitute Facilitator for M1/M2 Small Group Didactic Sessions, Rush Medical College Alternative (Problem-Based) Curriculum	1996-2001

### **Mentorship**

#### **Postdoctoral Fellow (Primary Mentor)**

Amos Dodi, M.D., University of Michigan	2013-2015
Priya Kulasekaran, Ph.D., University of Michigan	2007-2010

#### **Resident/House Officer (Primary Mentor)**

Sankalp Malhotra, M.D., PhD, The Ohio State University (PSTP)	2021-
Christopher B. Lewis, M.D., University of Michigan	2018-2019
Jessie E. King, M.D., Ph.D., University of Michigan	2012-2013

#### **Graduate Students (Primary Mentor)**

Joshua White, Ph.D., Biomedical Engineering, University of Michigan 2011-2013  
Casey Scavone, B.S., M.S. Engineering, University of Michigan 2008-2009

Post Graduate Trainees (Primary Mentor)

Hannah Bone, B.S. The Ohio State University 2021-  
Ivana DeVengencie, B.S. The Ohio State University 2020-2021  
David S. Rogers, B.S., University of Michigan 2006-2007

Undergraduate Students (Primary Mentor)

Kaylie E. Glenn, The Ohio State University 2020-  
\* 1<sup>st</sup> Prize, 2021 Department of Internal Medicine Research Day (May 2021) and  
\*3<sup>rd</sup> Prize, 2021 DHLRI Research Day (October 2021):  
“TGF- $\beta$ 1 Regulation of Cellular IAP proteins in Fibroblasts”  
\* Ohio State Undergraduate Research Scholarship “Mechanistic regulation of XIAP by TGF- $\beta$ 1 in lung fibroblasts”  
Christine Chang, University of Michigan 2015-2017  
Meghan Beard, University of Michigan 2015-2017  
Christopher Chou, University of Michigan 2014-2015  
Madalyn L. Holzapfel, University of Michigan 2014-2015  
Rebecca Harris, University of Michigan 2013-2014  
Jordan K. Case, University of Michigan 2013-2014  
Szu-Tsen (Jody) Chou, University of Michigan 2012-2013  
Antonios Dimopoulos, University of Michigan 2011-2013  
Sarah K. Townsend, University of Michigan 2010-2011  
Meridith Carrell, University of Michigan 2009-2010

**Scientific Advisory Committees**

Faculty Career Development Award

Sean Fortier, M.D., University of Michigan (K-08 submission) 2021-

Postdoctoral Fellow (Advisory Committee)

Caymen Novak, PhD., The Ohio State University 2021-  
Stephanie Matthes, Ph.D., University of Michigan 2012-2015  
Payal Naik, M.D., University of Michigan 2012-2013  
Megan Ballinger, Ph.D., University of Michigan 2010-2012

Clinical Fellow (Advisory Committee)

Matthew Huang, M.D. The Ohio State University 2021- current  
Kyle Stinehart, M.D. The Ohio State University 2020- current  
Sean Fortier, M.D., University of Michigan 2018-2020  
Matthew K. Hensley, M.D., University of Michigan 2018-2019  
Shijing Jia, M.D., University of Michigan 2015-2017  
Jacob Scott, M.D., University of Michigan 2012-2013  
Garth Garrison, M.D., University of Michigan 2010-2011

**Honors and Awards**

American Thoracic Society (ATS) Fellow 2018  
University of Michigan Medical School Academy of Medical Educators 2018  
Token of Appreciation from Medical Students Award 2018  
Fellowship, American College of Chest Physicians 2008  
T. Franklin Williams Scholar, Association of Specialty Professors 2008  
Entelligence Young Investigator Award (Actelion) 2007  
The Dalsemer Award for Research in Interstitial Lung Disease, American Lung 2006  
NIH Loan Repayment Program Award for Clinical Research 2005-2009  
Pulmonary Fellowship Award Recipient (Boehringer), ATS Annual Meeting 2004  
1st Prize, Meritorious Abstract/Poster Presentation, Michigan Thoracic Society/  
ACCP Annual Meeting 2003  
Michigan Thoracic Society/ACCP Annual Meeting

Alpha Omega Alpha, Rush Medical College	1998
Ramsey2 Scholarship, Rush Medical College	1998
Medical Staff Award for Clinical Excellence, Rush Medical College	1998
James B. Herrick Award for Outstanding Achievement in Internal Medicine, Rush Medical College	1998
Henry M. Lyman Memorial Prize for the Outstanding Junior Medical Student, Rush Medical College	1997
Eunice G. Greeley Endowed Scholarship, Rush Medical College	1997
Dean's Fellowship Award, Rush Medical College	1997-1998
Illinois Academy of Family Medicine Summer Externship	1995
Outstanding Achievement in Biology, Syracuse University	1993
Phi Beta Kappa National Honor Society, Syracuse University	1993
Dean's List, Syracuse University (6 consecutive semesters), Syracuse	1990-1993

## Grants and Contract Awards

### Current

U54 AG075931 Tri-State SenNET Lung and Heart Tissue Mapping Consortium. (MPI: Finkel, Koenigshoff, Mora, Rahman). 09/01/2021-09/30/2026. \$4,327,254 (Co-I with 5% effort).

Ohio State University Department of Internal Medicine Multi-Investigator Pilot Grant: "Regulation of mesenchymal cell fate by monocyte-derived extracellular vesicles: implications for lung injury, repair and fibrosis" Role: Co-Principal Investigator (with Anasuya Sarkar, Ph.D.) 04/01/2021-03/30/2022 (\$75,000)

*R01 HL141195: X-Linked Inhibitor of Apoptosis (XIAP) in Fibroblast Phenotypes and Lung Fibrosis* NIH-DHHS-US- 17-PAF06922 Horowitz, Jeffrey C, PI 02/2018-01/2022 (NCE). \$2,339,341 (\$592,516)

### Past

Ohio State University 2020 COVID-19 Seed Award – "Longitudinal Molecular Profiling of Severe SARS-CoV-2 Viral Pneumonia" Role: Co-Investigator (Principal Investigator: Joseph Bednash) 04/2020-03/2021. (\$50,000)

Ohio State University Depart of Medicine Pilot Research Award: "Chronic Lung Manifestations of SARS-CoV-2 Pneumonia" Role: Co-Principal Investigator (\$25,000)

*5 R01 HL127203-05: CDKN2B as a Novel Epigenetically Regulated Gene in Idiopathic Pulmonary Fibrosis* NIH-DHHS-US- 14-PAF06594 Co-I with Effort (Principal Investigator: Steven Huang) 04/2015-03/2020. \$1,884,314 (\$384,821)

*BX004270-01: X-Linked Inhibitor of Apoptosis in Fibroblast Phenotypes and Lung Fibrosis (Award declined due to overlap with accepted R-01)* Department of Veterans Affairs Jeffrey C. Horowitz, PI 05/2018

*Effects of nintedanib on lung fibroblast extracellular matrix production and signaling* Boehringer Ingelheim, Ltd.- 16- PAF05787 Horowitz, Jeffrey C, PI 05/2016-04/2017. \$40,000 (\$40,000)

*Real-Time Ultrasound Measurement of Local Lung Ventilation* University of Michigan - MTRAC Kickstart Award Co-I with Effort (Principal Investigator: Jonathan M. Rubin, M.D., Ph.D., Department of Radiology) 06/2015-06/2016. \$25,000

*Martin E. Galvin Fund for Pulmonary Fibrosis Research Pilot Grant* University of Michigan Pulmonary Division Jeffrey C. Horowitz, M.D., PI 05/2014-04/2015. \$16,667 (\$16,667)

*5 R01 HL115618-04: Periostin Regulation of Lung Fibrosis* NIH-DHHS-US- 13-PAF02848 Co-I with Effort (Principal Investigator: Moore, Bethany B) 08/2013-05/2017. \$2,058,290 (\$395,698)

*5 R01 HL105489-05: Mesenchymal Cell Fate Determination by Extracellular Matrix Stiffness* NIH-DHHS-US- 11-PAF01916 Horowitz, Jeffrey C, PI 08/2011-06/2016. \$1,970,817 (\$405,174)

*Award letter dated 7/22/09: Myofibroblast Fate Determination by Extracellular Matrix Interactions* American College of Chest Phys- 08-4862 Horowitz, Jeffrey C, PI 07/2008-06/2010. \$100,000 (\$50,000)

2 R01 HL067967-06A2: 2 R01 HL067967-06A2, *Oxidants and TGF-B in Myofibroblast Differentiation/Survival* NIH- DHHS-US- 07-5540 Co-I with Effort (Principal Investigator: Thannickal, Victor J) 04/2008-06/2009. \$1,504,772 (\$270,086)

Letter dtd. 7/10/07 & Check# 1664 dtd 7/13/07: *Regulation of Myofibroblast Resistance to Apoptosis by Endothelin-1* Actelion- 07-3494 Horowitz, Jeffrey C, PI 07/2007-06/2008. \$75,000 (\$75,000)

DA-20767-N: DA-20767-N, *Mesenchymal Cell Survival Signaling in the Pathogenesis of Pulmonary Fibrosis* American Lung Association- 06-0735 Horowitz, Jeffrey C, PI 07/2006-06/2008. \$80,000 (\$40,000)

5 K08 HL081059-05: 5 K08 HL081059-05, *Mesenchymal Cell Survival Signaling by TGF-B1* NIH-DHHS-US- 05-1031 Horowitz, Jeffrey C, PI 08/2005-11/2010. \$660,660

## Publications

### Peer-Reviewed Journals and Publications (\* signifies trainee)

1. Thannickal VJ, Lee DY, White ES, Cui Z, Larios JM, Chacon R, **Horowitz JC**, Day RM, Thomas PE: Myofibroblast differentiation by transforming growth factor-beta1 is dependent on cell adhesion and integrin signaling via focal adhesion kinase. *J. Biol. Chem.* 278(14): 12384-12389, 2003. PM12531888
2. **Horowitz, JC**, Lee DY, Waghray M, Keshamouni VG, Thomas PE, Zhang H, Cui Z, Thannickal VJ: Activation of the pro-survival phosphatidylinositol 3-kinase/AKT pathway by transforming growth factor- beta1 in mesenchymal cells is mediated by p38 MAPK-dependent induction of an autocrine growth factor. *J. Biol. Chem.* 279(2): 1359-1367, 2004. PM14576166
3. Waghray M, Cui Z, **Horowitz, JC**, Subramanian IM, Martinez FJ, Toews GB, Thannickal VJ: Hydrogen peroxide is a diffusible paracrine signal for the induction of epithelial cell death by activated myofibroblasts. *FASEB J.* 19(7): 854-856, 2005. PM15857893
4. Vittal R, **Horowitz JC**, Moore BB, Zhang H, Martinez FJ, Toews GB, Standiford TJ, Thannickal VJ: Modulation of prosurvival signaling in fibroblasts by a protein kinase inhibitor protects against fibrotic tissue injury. *Am. J. Pathol.* 166(2): 367-375, 2005. PM15681821
5. **Horowitz JC**, Thannickal VJ: Idiopathic pulmonary fibrosis: new concepts in pathogenesis and implications for drug therapy. *Treat Respir Med* 5(5): 325-342, 2006. PM16928146
6. **Horowitz JC**, Thannickal VJ: Epithelial-mesenchymal interactions in pulmonary fibrosis. *Semin Respir Crit Care Med* 27(6): 600-612, 2006. PM17195137
7. Thannickal VJ, **Horowitz JC**: Evolving concepts of apoptosis in idiopathic pulmonary fibrosis. *Proc Am Thorac Soc* 3(4): 350-356, 2006. PM16738200
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9. **Horowitz JC**, Rogers DS\*, Sharma V\*, Vittal R, White ES, Cui Z, Thannickal VJ: Combinatorial activation of FAK and AKT by transforming growth factor-beta1 confers an anoikis-resistant phenotype to myofibroblasts. *Cell. Signal.* 19(4): 761-771, 2007. PM17113264
10. Vittal R, Zhang H, Han MK, Moore BB, **Horowitz JC**, Thannickal VJ: Effects of the protein kinase inhibitor, imatinib mesylate, on epithelial/mesenchymal phenotypes: implications for treatment of fibrotic diseases. *J. Pharmacol. Exp. Ther.* 321(1): 35-44, 2007. PM17218487
11. **Horowitz JC**, Rogers DS\*, Simon RH, Sisson TH, Thannickal VJ: Plasminogen activation induced pericellular fibronectin proteolysis promotes fibroblast apoptosis. *Am. J. Respir. Cell Mol. Biol.* 38(1): 78- 87, 2008. PM17656680/PMC2176129
12. **Horowitz JC**, Limper AH: Stress in the ER (endoplasmic reticulum): a matter of life and death for epithelial cells. *Am. J. Respir. Crit. Care Med.* 178(8): 782-783, 2008. PM18832553/PMC2720126
13. Kulasekaran P\*, Scavone CA\*, Rogers DS\*, Arenberg DA, Thannickal VJ, **Horowitz JC**: Endothelin-1 and transforming growth factor-beta1 independently induce fibroblast resistance to apoptosis via AKT activation. *Am. J. Respir. Cell Mol. Biol.* 41(4): 484-493, 2009. PM19188658/PMC2746991
14. Huang SK, White ES, Wettlaufer SH, Grifka H, Hogaboam CM, Thannickal VJ, **Horowitz JC**, Peters- Golden M: Prostaglandin E(2) induces fibroblast apoptosis by modulating multiple survival

- pathways. *FASEB J.* 23(12): 4317-4326, 2009. PM19671668/PMC2812040
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  16. **Horowitz JC**, Martinez FJ, Thannickal VJ: Mesenchymal cell fate and phenotypes in the pathogenesis of emphysema. *COPD* 6(3): 201-210, 2009. PM19811376/PMC3524525
  17. **Horowitz JC**, Peters-Golden M: Prostaglandin E2's new trick: "decider" of differential alveolar cell life and death. *Am. J. Respir. Crit. Care Med.* 182(1): 2-3, 2010. PM20601589
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  19. Johnson LA, Luke A, Sauder K, Moons DS, **Horowitz JC**, Higgins PD: Intestinal fibrosis is reduced by early elimination of inflammation in a mouse model of IBD: impact of a "Top-Down" approach to intestinal fibrosis in mice. *Inflammatory bowel diseases* 18(3): 460-71, 2012. PM21761511
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  22. Ballinger MN, Newstead MW, Zeng X, Bhan U, **Horowitz JC**, Moore BB, Pinsky DJ, Flavell RA, Standiford TJ: TLR Signaling Prevents Hyperoxia-Induced Lung Injury by Protecting the Alveolar Epithelium from Oxidant-Mediated Death. *J. Immunol.* 189(1): 356-364, 2012. PM22661086
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36. Liu F, Lagares D, Choi KM, Stopfer L, Marinković A, Vrbanac V, Probst CK, Hiemer SE, Sisson TH, **Horowitz JC**, Rosas IO, Fredenburgh LE, Feghali-Bostwick C, Varelas X, Tager AM, Tschumperlin DJ: Mechanosignaling through YAP and TAZ drives fibroblast activation and fibrosis. *American Journal of Physiology. Lung Cellular and Molecular Physiology* 308(4): L344-57, 2015. PM25502501/PMC25502501
37. Sanders YY, Cui Z, Le Saux CJ, **Horowitz JC**, Rangarajan S, Kurundkar A, Antony VB, Thannickal VJ: SMAD-Independent Down-Regulation of Caveolin-1 by TGF- $\beta$ : Effects on Proliferation and Survival of Myofibroblasts. *PLoS one* 10(2): e0116995, 2015. PM25658089/PMC25658089
38. Meyers KK, Crane NA, O'Day R, Zubieta JK, Giordani B, Pomerleau CS, **Horowitz JC**, Langenecker SA: Smoking history, and not depression, is related to deficits in detection of happy and sad faces. *Addictive behaviors* 41: 210-7, 2015. PM25452067/PMC4314430
39. Matthes SA, LaRouere TJ, **Horowitz JC**, White ES: Plakoglobin expression in fibroblasts and its role in idiopathic pulmonary fibrosis. *BMC Pulm Med* 15: 140, 2015. PM26545977/PMC4636798
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57. Lewis CB<sup>#\*</sup>, Hensley MK<sup>#\*</sup>, Barrett JE\*, Van Norman SB, Taylor S, **Horowitz JC** (# equal contributions): Phlegmasia Cerulea Dolens: A Rare Cause of Shock Respirology Case Reports 7(5): e00424, 2019.
58. Wells AU, Brown KK, Flaherty KR, Kolb M, Thannickal VJ; IPF Consensus Working Group\*\*K.M. Antoniou, J. Behr, P.B. Bitterman, C.D. Cool, U. Costabel, T.V. Colby, V. Cottin, B. Crestani, G.P. Downey, J. Gaudie, S.D. Groshong, A. Guenther, **Horowitz JC**, Y. Inoue, J.A. Lasky, A.H. Limper, D.A. Lynch, F.J. Martinez, J.L. Myers, A.G. Nicholson, I. Noth, V. Poletti, C.J. Ryerson, J.H. Ryu, D. Valeyre, C. Vancheri and E.S. White: Pulmonary fibrosis: "idiopathic" is not "cryptogenic" (*Author's Reply*) European Respiratory Journal 53(3): pii: 1900400, 2019. PMID: 30886028
59. **Horowitz JC**, Tschumperlin DJ, Kim KK, Osterholzer JJ, Subbotina N, Ajayi OI, Teitz-Tennenbaum S, Virk A, Dotson M, Liu F, Sicard D, Jia S, Sisson TH.: Urokinase Plasminogen Activator Overexpression Reverses Established Lung Fibrosis. Thrombosis and Haemostasis 119(12): 1968-1980, 2019. PMID: 31705517
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61. Nho, RS, Ballinger MN, Rojas, MM, Ghadiali SN, **Horowitz JC**: Biomechanical Force and Cellular

- Stiffness in Lung Fibrosis. *Am J Path* 192(5): 750-761, 2022. PMID: 35183510
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  63. Pannu SR, Haddad T, Exline M, Christman JW, **Horowitz JC**, Peters J, Brock G, Diaz P, Crouser ED: Rationale and Design of a Randomized Controlled Clinical Trial: Titration of 1 Oxygen Levels (TOOL) During Mechanical Ventilation. *Contemporary Clinical Trials* (In Press 2022)

#### Book Chapters

1. Lynch JP, **Horowitz JC**, Thannickal VJ.: "Nonspecific Interstitial Pneumonia". *Diffuse Lung Disease: A Practical Approach*, Baughman R., ed. Arnold Health Sciences, London, United Kingdom, 2004. pp. 152- 165
2. **Horowitz, JC**, Thannickal VJ: Fibroblast Biology in Idiopathic Pulmonary Fibrosis. *Contemporary Approaches to Idiopathic Pulmonary Fibrosis*, Selman, M and Pardo, A. Future Medicine, London, UK, 2015. 98-117

#### Other Media

1. Herman D, **Horowitz, JC**, Tita J, Levine E, Feagins S, Ofori E, Meara A, DeWitt J, Gerken M, Owens M, Franco V, Rajpal R, Benza R, Kopanczyk R, Owens R, Felkel C, Scharre D, Johns K, Kasick D, Hawk S. Post-Acute COVID-19 Syndrome Management, OSUWMC Clinical Practice Guideline, July 2021.

#### **Published Abstracts and Presentations (\*signifies trainee)**

1. Malhotra S\*, Prasad J, Bone H, **Horowitz JC**. "Differential expression and stability of XIAP and cIAP-1 may influence the apoptosis-resistant phenotype of lung fibroblasts in Idiopathic Pulmonary Fibrosis" American College of Chest Physicians (CHEST), Nashville TN, 2022
2. Nho R, Rice C, Glenn K\*, Bone H\*, Prasad J, **Horowitz JC**. "Aberrant regulation of lactate dehydrogenase by TGF- $\beta$  in IPF fibroblasts" The American Thoracic Society International Conference, San Francisco CA, 2022
3. Sarkar A, Das S, Bone H\*, DeVengencie I\*, Prasad J, Londino J, Rojas M, **Horowitz JC**. "Regulation of mesenchymal cell fate by monocyte-derived extracellular vesicles." The American Thoracic Society International Conference, San Francisco CA, 2022
4. Shakaroun D\*, **Horowitz JC**, Lazar MH, Jennings J. "Trending Ferritin Levels Do Not Predict Mortality and Ventilator Days in Patients with Coronavirus Disease 2019 Infection." The American Thoracic Society International Conference, San Francisco CA, 2022
5. Malhotra S\*, Prasad J, Bone H\*, **Horowitz JC**. "Differential expression and stability of XIAP and cIAP-1 may influence the apoptosis-resistant phenotype of lung fibroblasts in Idiopathic Pulmonary Fibrosis." Department of Internal Medicine Research Day, The Ohio State University College of Medicine, Columbus OH, 2022
6. Glenn K\*, Nho R, Bone H\*, DeVengencie I\*, Prasad J, **Horowitz JC**. "TGF- $\beta$ 1 Regulation of XIAP in Normal Lung Fibroblasts is Dependent on PI3K and FAK but Independent of mTOR Signaling." Davis Heart and Lung Research Institute Research Day, The Ohio State University Wexner Medical Center, Columbus OH, 2021
7. Prasad J, DeVengencie I\*, Glenn K\*, **Horowitz JC**. "Cellular IAP (cIAP) Family Proteins Regulate TGF- $\beta$ 1 Induced Metabolic Reprogramming of Lung Fibroblasts." American Thoracic Society International Conference 2021 (Virtual Poster Presentation)
8. Prasad J and Horowitz JC.: "Cellular IAP (cIAP) Family Proteins Regulate TGF- $\beta$ 1 Induced Metabolic Reprogramming of Lung Fibroblasts", Davis Heart and Lung Research Day, The Ohio State University Wexner Medical Center, Columbus OH, 2020
9. **Horowitz JC**, Tschumperlin DJ, Kim KK, Subbotina N, Ajayi O, Virk A, Dotson M, Liu F, Sicard D, Jia S, Sisson TH.: "Urokinase Plasminogen Activator Overexpression Reverses Established Lung

Fibrosis", International Colloquium of Lung and Airway Fibrosis, Pacific Grove, CA, 2018.

10. Sanders Y, Bai L, Tang S, **Horowitz JC**, Thannickal VJ.: Apoptosis Resistance of IPF Fibroblasts Is Mediated by Glutaminolysis-Dependent Epigenetic Regulation of Pro-Survival Genes, American Thoracic Society International Conference, San Diego, CA, USA, 2018.
11. Jia S, **Horowitz JC**, Agarwal M, Kim KK.: Type I Collagen Signaling Through DDR2 Receptor Regulates Fibroblast Apoptosis Through AKT, American Thoracic Society International Conference, Washington D. C., USA, 2017.
12. **Horowitz JC**, Kim KK, Ajayi IO, Tschumperlin DJ, Moore BB, Sisson TH.: X-linked Inhibitor of Apoptosis (XIAP) Regulates Suppression of Fibroblast Autophagy by TGF- $\beta$ 1 and Rigid Extracellular Matrix Substrates, International Colloquium of Lung and Airway Fibrosis (ICLAF), Dublin, Ireland, 2016.
13. Jia S, **Horowitz JC**, Loo T, Agarwal M, Kim KK.: Type I Collagen Signaling Regulates Fibroblast Activation, Proliferation, and Apoptosis, American Thoracic Society International Conference, San Francisco, CA, 2016.
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18. Scurggs AM, **Horowitz JC**, White E, Huang SK.: DNA Hypermethylation of *CDKN2B* Contributes to a Pro-fibrotic Phenotype in IPF Fibroblasts, American Thoracic Society International Conference, Denver, CO, 2015.
19. Sisson TH, Ajayi IO, Subbotina N, Dodi AE\*, Rodansky ES, Chibucos LN, Kim KK, Keshamouni VG, Zhou Y, Higgins PDR, Larsen SD, Neubig RR, **Horowitz JC**: "Inhibition of MRTF/SRF Signaling Decreases Fibrosis and Promotes Fibroblast/Myofibroblast Apoptosis", American Thoracic Society International Conference, Denver, CO. May, 2015.
20. **Horowitz JC**, Ajayi IO, Subbotina N, Keshamouni VG, Larsen SD, Neubig RR, Sisson TH: Pharmacologic Inhibition of SRF/MRTF-A Signaling Enhances Fibroblast Apoptosis and Promotes the Resolution of Lung Fibrosis, The 18th International Colloquium of Lung and Airway Fibrosis, Mont Tremblant, Canada, 2014.
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23. Crane N.A., Meyers K., O'Day R., Zubieta J.K., Pomerleau C.S., **Horowitz J.C.**, Langenecker S.A.: The Impact of Smoking History and Depression on Executive Functioning and Emotional Processing, The Society of Biological Psychiatry's 68th Annual Meeting, May, San Francisco, CA, 2013.
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31. Kulasekaran P.\*, Carrel M., **Horowitz J.C.**: Endothelin-1 Induction of Focal Adhesion Kinase in Normal Human Lung Fibroblasts is Dependent on Rho-Kinase, University of Michigan Internal Medicine Research Symposium, May, Ann Arbor, MI, 2010.
32. **Horowitz JC**, Kulasekaran P\*, Mih J, Sisson TH, Tschumperlin DJ: Regulation of Mesenchymal Cell Fate by Extracellular Matrix Stiffness, American Thoracic Society International Conference, Am J Respir Crit Care Med, 181, A3555, 2010.
33. Kulasekaran P.\*, Thannickal V.J., **Horowitz J.C.** : Endothelin-1 Induction of Focal Adhesion Kinase in Normal Human Lung Fibroblasts is Dependent on Rho-Kinase., American Thoracic Society International Conference, Am. J. Respir. Crit. Care Med., 181, A3564, 2010.
34. **Horowitz J.C.**, Kulasekaran P.\*, Mih J., Sisson T.H., Tschumperlin D.J.: Mechanoregulation of Mesenchymal Cell Survival in Lung Fibrogenesis., American Geriatric Society Meeting, May, 2010.
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37. Huang S.K., Wettlaufer S.H., Sagana R., White E., **Horowitz J.C.**, Thannickal V.J., Peters-Golden M.: Activation of PTEN/Inhibition of Akt is Responsible for the Pro-Apoptotic Effects of Prostaglandin E2 in Lung Fibroblasts., American Thoracic Society International Meeting, Am. J. Respir. Crit. Care Med., 179, A3472, 2009.
38. Kulasekaran P\*, Scavone C.A.\*, Sisson T.H., Tschumperlin D.J., Thannickal V. J., **Horowitz J.C.**: Myofibroblast Fate Determination by Extracellular Matrix Interactions, American Geriatric Society Meeting, May 2009., 2009.
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43. **Horowitz J.C.**, Rogers D.S.\*, Sisson T.H., Thannickal V.J.: TGF- $\beta$ 1 inhibition of plasminogen activation regulates fibroblast apoptosis., American Thoracic Society International Conference, *Proc Am Thor Soc*, 175, A336, 2007.
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46. Jennings JH, **Horowitz J.C.**, Lazar MH, Mendez MP, Keena D, Baleeiro, CEO: An internet-based forum of case presentations: a novel form of peer-review., American Thoracic Society International Conference, *Proc Am Thor Soc*, 3, A89, 2006.
47. **Horowitz, J.C.**, Sharma, V.\*, Thomas, P.E., Thannickal, V.J.: Activation of FAK and PKB/Akt are independently regulated by TGF- $\beta$ 1 and cooperatively promote myofibroblast survival, American Thoracic Society International Conference, *Proc Am Thor Soc*, 2, A58, 2005.
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50. **Horowitz, J.C.**, Thomas, P.E., Lee, D.Y., Waghray, M.S., Keshamouni, V.G., Cui, Z., Thannickal, V.J.: Activation of the pro-survival PI3K/Akt pathway by TGF- $\beta$ 1 in human lung mesenchymal cells is mediated by a p38 MAPK-dependent autocrine pathway., American Thoracic Society International Conference, *Am J Respir Crit Care Med*, 169, 7, A792, 2004.
51. **Horowitz, J.C.**, Zhang, H., Lee, D.Y., Thomas, P.E., Cui, Z. and Thannickal, V.J.: "Transforming growth factor- $\beta$ 1 inhibits apoptosis of alveolar mesenchymal cells by activation of the PI3K-Akt pathway", American Thoracic Society International Conference, *Am J Respir Crit Care Med*, 167, 7, A929, 2003.
52. Thomas, P.E., Moore, B.B., Zhang, H., **Horowitz, J.C.**, Reddy, R.C., Toews, G.B., Standiford, T.J., Thannickal, V.J.: "Auto-activated" phenotype of alveolar mesenchymal cells isolated from fibroproliferative ARDS", American Thoracic Society International Conference, *Am J Respir Crit Care Med*, 167, 7, A647, 2003.

## Oral Presentations

**Invited Speaker** (International): "Career Moves"  
New Faculty Bootcamp, American Thoracic Society International

2022

Conference, May 2022, San Francisco CA

<b>Discussant (International):</b> "Navigating Changes in Mid-career, Pivots and Promotions" Faculty Development Series, American Thoracic Society International Conference, May 2022, San Francisco CA	2022
<b>Panel Member: "Mentoring"</b> Virtual Seminar hosted by the RCMB Assembly of the American Thoracic Society	2021
<b>DHLRI Research in Progress:</b> "Regulating Myofibroblasts to Promote Fibrosis Resolution", Ohio State University Wexner Medical Center, February 2020, Columbus, Ohio	2020
<b>Research Seminar:</b> "Fibrosis Resolution and Myofibroblast Fates", Ohio State University Wexner Medical Center, February 2019, Columbus, Ohio	2019
<b>Research Seminar:</b> "Fibrosis Resolution and Myofibroblast Fate", Indiana University, January 2019, Indianapolis, IN	2019
<b>Research Seminar:</b> "Myofibroblasts And Fibrosis: When Friend Becomes Foe", National Jewish Health, April 2018, Denver, CO	2018
<b>Research Seminar:</b> "Myofibroblasts in Pulmonary Fibrosis: Breaking Bad or Just Misunderstood?" University of Texas Health Northeast, September 2017, Tyler, TX	2017
<b>Invited Speaker (International):</b> "How to Develop an Effective Training Plan" Center for Career Development, American Thoracic Society International Conference, May 2017, Washington, D.C.	2017
<b>Basic Science Workshop.</b> "Myofibroblasts and Lung Fibrosis: Too Much of a Good Thing", National Jewish Health, March 2017, Denver, CO	2017
<b>Pulmonary Medicine Grand Rounds:</b> "Survive and Advance: Myofibroblast Fate and Pulmonary Fibrosis." University of Alabama Birmingham, November 2016, Birmingham, AL	2016
<b>Speaker (International):</b> "X-linked Inhibitor of Apoptosis (XIAP) Regulates Suppression of Fibroblast Autophagy by TGF- $\beta$ 1 and Rigid Extracellular Matrix Substrates", International Colloquium of Lung and Airway Fibrosis, September 2016, Dublin, Ireland	2016
<b>Research Seminar:</b> "Survive and Advance: "Myofibroblast Fate and Pulmonary Fibrosis." University of Louisville, August 2016, Louisville, KY	2016
<b>Invited Speaker:</b> "Fibroblast Apoptosis: The Key to Normal or Fibrotic Repair", MedImmune, July 2015, Gaithersburg, MD	2015
<b>Invited Speaker (National):</b> NIH/NHLBI Workshop: Extracellular Matrix in Lung Health and Disease: "Regulation of Myofibroblast Fate by the Extracellular Matrix and TGF- $\beta$ 1: Overlapping Mechanisms and Links to Lung Fibrosis", NIH/NHLBI, September 2014, Bethesda, MD	2014
<b>Research Seminar:</b> Enhancing Fibroblast Apoptosis: A Therapeutic Strategy in Fibrotic Lung Disease, Medical University of South Carolina, March 2014, Charleston, SC	2014
<b>Research Seminar:</b> "Resolving Fibrosis: Enhancing Fibroblast Apoptosis as a Potential Therapy", Lerner Research Institute, Pathobiology Seminar Series,	2013

The Cleveland Clinic, September 2013, Cleveland, OH

- Research Seminar** "Regulation of Fibroblast Apoptosis: A Potential Therapeutic Strategy in Pulmonary Fibrosis" Division of Pulmonary, Critical Care and Occupational Medicine, University of Iowa, December 2012, Iowa City, IA 2012
- Invited Speaker** (National): "Extracellular Matrix Remodeling and Fibrosis Regression", Idiopathic Pulmonary Fibrosis Strategic Planning Workshop, NIH/NHLBI, November 2012, Bethesda, MD. 2012
- Speaker** (International): "Inhibitor of Apoptosis Proteins Regulate IPF Fibroblast Resistance to Fas- mediated Apoptosis.", International Colloquium of Lung and Airway Fibrosis, September 2012, Modena Italy 2012
- Research Seminar**, "Myofibroblast Fate in Lung Injury and Repair: In Search of Novel Therapeutic Targets For Fibrosis." Section of Pulmonary and Critical Care Medicine, University of Chicago, January 2012, Chicago, IL 2012
- Research Seminar**, "Mesenchymal Cell Fate Determination: A Switch Between Physiologic and Pathologic Repair." Division of Respiratory Critical Care and Occupational Pulmonary Medicine, University of Utah School of Medicine, March 2010, Salt Lake City, Utah 2010
- Invited Speaker**: "Difficult to Control Asthma: Systematic Evaluation and Therapeutic Options." 11<sup>th</sup> Annual Clinical Chest Conference, William Beaumont Hospital, September 2008, Troy, MI 2008
- Speaker** (International) "Plasminogen Activation in the Regulation of Fibroblast Apoptosis" Scientific Symposium: "Beyond haemostasis: targeting procoagulant and fibrinolytic signaling pathways in acute and chronic lung injury", American Thoracic Society International Conference, May 2008, Toronto, CA 2008
- Research Seminar** "Mesenchymal Cell Fate in Lung Injury and Repair", Division of Pulmonary and Critical Care Medicine, University of Illinois, April 2008, Chicago, IL 2008

Other

- Co-Chair, "Fibroblast Diversity in Fibrotic Disease."** Keystone Conference- Tissue Fibrosis and Repair: Mechanisms, Human Disease and Therapies. June 2022, Keystone, CO 2022
- Co-Chair, Mini-Symposium.** "New Insights in Fibroblast Biology and Pulmonary Fibrosis" 2022 American Thoracic Society International Conference, May 2022, San Francisco CA
- Group Leader:** "Leadership at Your Institution" New Faculty Bootcamp, 2022 American Thoracic Society International Conference, May 2022, San Francisco CA
- Group Leader:** "Should I Stay or Should I Go?" New Faculty Bootcamp, 2022 American Thoracic Society International Conference, May 2022, San Francisco CA
- Discussion Leader,** "Lung Injury and Chronic Sequelae." Gordon Research Conference 2021 on Lung Development, Injury and Repair
- Co-Chair,** Thematic Poster Session. "Novel Discoveries in Lung Biology" American Thoracic Society International Conference (Virtual) 2021
- Chair and Organizer,** Scientific Symposium: "Using the Basic Biology of IPF to Design New Therapies", American Thoracic Society International Conference, May 2019, Dallas, TX 2019

<b>Lead Facilitator</b> , Thematic Poster Session. "Diffuse parenchymal lung diseases: Basic and clinical studies", American Thoracic Society International Conference, May 2019, Dallas, TX	2019
<b>Poster Discussion Leader</b> : International Colloquium of Lung and Airway Fibrosis, International Colloquium of Lung and Airway Fibrosis, October 2018, Pacific Grove, CA	2018
<b>Facilitator</b> : Thematic Poster Session, "Clinical Studies in Autoimmune Lung Disease", American Thoracic Society International Conference, May 2018, San Diego, CA	2018
<b>Facilitator</b> : Thematic Poster Session "Fibroblast Biology", American Thoracic Society International Conference, May 2018, San Diego, CA	2018
<b>Chair and Organizer</b> : Faculty Development Series Panel Discussion: "Should I stay or should I go? How to approach fellow-to-faculty and early career faculty transitions", Faculty Development Seminar, American Thoracic Society International Conferences, May 2018, San Diego, CA	2018
<b>Moderator</b> : "How to make the most of your mentor at different phases of your career." Center for Career Development, American Thoracic Society International Conference, May 2018, San Diego, CA	2018
<b>Moderator</b> : Center for Career Development: "How to write a paper" Panel Discussion, American Thoracic Society International Conference, May 2017, Washington, D.C.	2017
<b>Chair and Organizer</b> : Faculty Development Series Panel Discussion: "Demystifying "What You Want To Be When You Grow Up."", American Thoracic Society International Conference, May 2017, Washington, D.C.	2017
<b>Moderator</b> : Center For Career Development "Private Practice" Panel Discussion, American Thoracic Society International Conference, May 2016, San Francisco, CA	2016
<b>Chair and Organizer</b> : Faculty Development Series Panel Discussion: "The Roadmap To Success in Early Academic Career Development: Your First Five Years", American Thoracic Society International Conference, May 2016, San Francisco, CA	2016
<b>Facilitator</b> : Thematic Poster Session "Lung Fibrosis: New Directions to inform the future", American Thoracic Society International Conference, May 2016, San Francisco, CA	2016
<b>Chair and Organizer</b> , Scientific Symposium: "Scar-cinoma: The Shared Biology and Clinical Overlap of Fibrosis and Cancer." American Thoracic Society International Conference, May 2015, Denver, CO	2015
<b>Moderator</b> : "Physician-Scientist Careers" Center for Career Development, American Thoracic Society International Conference, May 2015, Denver, CO	2015
<b>Chair</b> : Poster Discussion: "The Conflict Kitchen: Fibroblast Phenotypes", American Thoracic Society International Conference, May 2015, Denver, CO.	2015
<b>Lead Facilitator</b> : Thematic Poster Session "Lung Fibrosis: Fibroblast Biology." American Thoracic Society International Conference, May 2014, San Diego, CA	2014
<b>Co-Chair</b> , Poster Discussion: "Autophagy and Apoptosis: Death of Lung Cells", American Thoracic Society International Conference, May 2013, Philadelphia, PA	2013
<b>Co-Chair</b> , Mini Symposium: "The Matrix in control: Pathobiology driven by matrix remodeling and rigidity", American Thoracic Society International Conference, May 2012, San Francisco, CA	2012
<b>Moderator</b> , Original Investigations: "Cytokines and Cellular Interactions", American College of Chest Physicians International Conference, October 2011, Hawaii	2011
<b>Moderator</b> , Original Investigations: "ARDS and Lung Injury", American College of Chest Physicians International Conference, October 2011, Hawaii	2011
<b>Chair</b> , Mini Symposium: "Epithelial Aging, Injury and Regeneration in Pulmonary Fibrosis", American Thoracic Society International Conference, May 2011, Denver, CO	2011
<b>Moderator</b> , Original Investigations: "Interstitial Lung Disease: Mechanisms and Outcomes", American College of Chest Physicians International Conference, November 2010, Vancouver, CA	2010
<b>Co-Chair</b> , Poster Discussion Session: "Oxidative Stress, Signal Transduction and Mechanisms of Lung Injury", American Thoracic Society International Conference,	2010

May 2010, New Orleans, LA <b>Facilitator</b> , Thematic Poster Session: "Interstitial Lung Disease: Pathobiology, Biomarkers, and Treatment", American Thoracic Society International Conference, May 2010, New Orleans, LA	2010
<b>Moderator</b> , Poster Grand Rounds: "Pleural Disease", American College of Chest Physicians International Conference, November 2009, San Diego, CA	2009
<b>Moderator</b> , Case Report Session: "Sundry Sicknesses (Interstitial Lung Diseases)", American College of Chest Physicians International Conference, November 2009, San Diego, CA	2009
<b>Chair and Organizer</b> , Scientific Symposium: "Mechanotransduction in lung injury, repair and fibrosis: may the force be with us", American Thoracic Society International Conference, May 2009, San Diego, CA	2009
<b>Moderator</b> , Poster Session: "Critical Care Administration and Outcomes", American College of Chest Physicians International Conference, October 2008, Philadelphia, PA	2008
<b>Facilitator</b> , Thematic Poster Session: "Fibroblast biology -Back to the basics", American Thoracic Society International Conference, May 2008, Toronto, CA	2008
<b>Moderator</b> , Poster Session: "Critical Care Outcomes", American College of Chest Physicians International Conference, October 2007, Chicago, IL	2007
<b>Lead Discussion Facilitator</b> , Thematic Poster Session: "Signal transduction in lung fibroblasts", American Thoracic Society International Conference, May 2007, San Francisco, CA	2007

### Other Creative Products

1. **Horowitz, JC**: Acute Exacerbations of Chronic Obstructive Pulmonary Disease, The Pulmonary Report; 1 (1);29-38., Elsevier, 2004.

2.

#### Websites

**Horowitz JC**, Hyzy RC: Permissive Hypercapnic Ventilation, Rose B (ed). Up-to-Date in Pulmonary and Critical Care Medicine, vol. 11.3, Wellesley, MA (CD-ROM and Website), Up-To-Date, 2003

### Professional Community Activities

OSU Vaccine Station ACLS Provider - Present for multiple vaccine administration sessions per month between January and May 2021 to evaluate and treat symptoms, and respond to emergencies during large-scale COVID19 vaccination sessions.	2021
"COVID-19 Vaccine Physician Phone Bank." 10TV (WBNS), -Participated as an OSU physician in 10TV televised call-in session to answer questions from community members regarding COVID-19 vaccines, and how to access them.	2/10/2021.
Learning Communities Group Leader Ohio State University Medical School	2020-Present
Mentor, Respiratory Cell and Molecular Biology Assembly, American Thoracic Society: Mentor junior research investigators and physician-scientist physicians in career development	2013-Present
Mentor, American College of Chest Physicians: Mentor junior research investigators and physician-scientists in career development	2013-2015
Attending Physician, The Shelter-Ann Arbor, University of Michigan, Patient care indigent	2007

Mentors Program, Syracuse University, Syracuse University, Mentored students	2004-Present
Volunteer, Pilsen Homeless Health Services, Rush Medical College, Provided indigent with health care	1998-2001
Member, Pilsen Homeless Health Services, Rush Medical College, Steering Committee	1994-1998