

CURRICULUM VITAE

Hongwei Yao, MD, MS, PhD,

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EDUCATION

1. Anhui Medical University, Clinical Medicine, Bachelor of Medical Science (MD), 1992-1997
2. Anhui Medical University, Clinical Pharmacology, Master of Medical Science (MS), 1997-2000
3. Anhui Medical University, Clinical Pharmacology, PhD, 2000-2003

POSTGRADUATE TRAINING

2006-2010 Postdoctoral fellow, Department of Environmental Medicine, University of Rochester,
 Rochester, NY

HONORS AND AWARDS

2025	Springer Nature Author Service Award at Respiratory Research
2025	Award of Annual Celebration of Scholarship at Department of Pediatrics/Brown University
2025	ATS Fellow Designation
2022	2022 Whitsett award of Neonatal and Developing Lung/ATS program
2014	Poster award in the Pittsburgh-Munich International Lung Conference, Pittsburgh, PA.
2011	Excellent review panel award in the Chinese SciencePaper Online.
2011	Best publication Robert N. Infurna award in the Department of Environmental Medicine, University of Rochester Medical Center.
2008	Provincial Natural Science and Technology Progress Award (third class) from the Department of Science and Technology of Anhui Province in China.
2004	Servier Young Investigator Award in Pharmacology between the Chinese Pharmacological Society and the Institut de Recherches Internationales Servier (France). <i>There have only eight young investigators to obtain this award per year in China.</i>
2003	Excellent Paper Award in the Natural Science of Anhui Province in China.

ACADEMIC APPOINTMENTS

2024-Now	Director of the Cell Isolation and Organ Function Core at Cardiopulmonary Vascular Biology COBRE at OSRI of Providence VA Medical Center
2024-Now	Research Biologist at OSRI of Providence VA Medical Center
2024-Now	Professor of Department of Medicine (Research), Brown University, Providence, RI
2024-Now	Professor of Department of Molecular Biology, Cell Biology & Biochemistry (Research), Brown University, Providence, RI
2016-2024	Associate Professor of Department of Molecular Biology, Cell Biology & Biochemistry (Research), Brown University, Providence, RI

2010-2015 Assistant Professor, Department of Environmental Medicine (Research), University of Rochester, Rochester, NY
 2003-2006 Instructor, Department of Pharmacology, Zhejiang University, China

OTHER APPOINTMENTS

Providence VA Medical Center

2024-2027 Chair of Subcommittee on Research Safety (SRSS)

Brown University

2023 Brown Internal Reviewer: Falk Trust Catalyst applications

2022 Brown Internal Reviewer: Falk Trust Catalyst applications

2020 Brown Internal Reviewer: Falk Trust Catalyst applications

Ad hoc reviewer in the following study section panels

2025 Ad hoc reviewer: ZRG1 IVBH-M (40) P, October

2025 Ad hoc reviewer: 2025/10 ZRG1 RCCS-P (92) S, July 2025

2025 Ad hoc reviewer: NIH RCCS/SEP, April 2025

2024 Ad hoc reviewer: SEP: 2025/01 HLBP-A (2) 1, October

2024 Mock study section on CPVB/COBRE investigator R01 submission

2024 Ad hoc reviewer: RIBT study section, February

2023 Ad hoc reviewer: ZGM1 TWD-A(PR)

2023 Ad hoc member: Pennsylvania Department of Health (PA DOH) Grant.

2023 Ad hoc member: Florida Department of Health (FL DOH) Grant.

2023 Judge abstracts for awards at the NAVBO meeting 2023

2022 Ad hoc reviewer: NICHD FRN ZHD1 DSR-N (55) 2

2022 Ad hoc reviewer: NIEHS 2023/01 ZES1 LWJ-S (RI) 1

2022 Judge abstracts for the Society of Redox Biology and Medicine 2022

2022 Postdoctoral Research Applications in University of Cyprus

2022 Ad hoc reviewer: the CPVB/COBRE Year 10 Pilot Project

2021 Program Committee for SfRBM's 28th Annual Meeting

2021 Ad hoc reviewer: the CPVB/COBRE Year 9 Pilot Project

2021 Ad hoc reviewer: UK/Medical Research Council grant

2020 Ad hoc reviewer: NHLBI R01 ICER ZRG1 EMNR-S (55) R study section

2020 Ad hoc reviewer: the CPVB/COBRE Year 8 Pilot Project

2019 Ad hoc reviewer: The American Heart Association Innovative Project Awards

2019 Ad hoc reviewer: NHLBI R01 ICER ZRG1 EMNR-S (55) R study section

2019 Ad hoc reviewer: the CPVB/COBRE Year 7 Pilot Project

2019 Ad hoc member: Florida Department of Health (FL DOH) Grant.

2018 Ad hoc reviewer: the CPVB/COBRE Year 6 Pilot Project

2018 Ad hoc member: Florida Department of Health (FL DOH) Grant.

2018 Judge for the Young Investigator Awards of the Society of Redox Biology and Medicine 2018

2018 Ad hoc reviewer: The Netherlands Organisation for Scientific Research

2018 Ad hoc reviewer: The American Heart Association Innovative Project Awards

2018 Ad hoc member: The United Arab Emirates University Grant

2018 Ad hoc member: UK/Medical Research Council grant

2018 Ad hoc member: NHLBI R01 ZHL1 CSR-N (S1) study section.

2017 Ad hoc member: King's Health Partners R&D Challenge Fund in King College London

2017 Ad hoc member: Florida Department of Health (FL DOH) Grant.

2017 Ad hoc member: The Wellcome Trust/DBT India Alliance.

2016 Ad hoc member: Florida Department of Health (FL DOH) Grant.

2005 Ad hoc member: National Natural Science Foundation of China

Editor and editorial board membership

2024- Associate Editor: Respiratory Research
2023- Editorial member: Chinese Medical Journal Pulmonary and Critical Care Medicine
2023- Editorial member: Journal of Respiratory Biology and Translational Medicine
2022- Associate Editor of Frontiers in Pharmacology
2021- Editorial member: Frontiers in Bioscience-Landmark
2021- Editorial member: Frontiers in Bioscience-Scholar
2021- Editorial member: Frontiers in Bioscience-Elite
2020- Editorial member: Physiological Reports
2017-2018 Editorial member: American Journal of Physiology Lung Cellular and Molecular Physiology
2016- Editorial member: Frontiers in Pharmacology,
2010-2013 Editorial member: Journal of Respiratory Research
2010-2012 Editorial member: Dataset Papers in Science

Reviewer in the following journals

Acta Pharmacologica Sinica
Advanced Science
Aging
Aging and Disease
African Journal of Pharmacy and Pharmacology
African Journal of Biotechnology
Archivum Immunologiae et Therapiae Experimentalis
American Journal of the Medical Sciences
American Journal of Pathology
American Journal of Physiology-Cell Physiology
American Journal of Physiology-Lung Cellular and Molecular Physiology
American Journal of Respiratory and Critical Care Medicine
American Journal of Respiratory Cell and Molecular Biology
Biochimica et Biophysica Acta
Biochemical Pharmacology
BMC Pulmonary Medicine
BMC Genomics
Brain Research Bulletin
British Journal of Pharmacology
Breast Cancer Research and Treatment
Cellular and Molecular Biology Letters
Cellular and Molecular Life Sciences
Cellular Physiology and Biochemistry
Chemical Biology & Drug Design
Chinese Medicine
Clinical and Experimental Pharmacology and Physiology
Clinical Translational Medicine
Chinese Journal of Physiology
Circulation
EBioMedicine
Experimental Lung Research
Experimental and Therapeutic Medicine
European Respiratory Journal
FEBS Journal

Free Radical Biology and Medicine
 Frontiers in Pharmacology
 Frontiers in Medicine
 Inflammation
 Immunologiae et Therapiae Experimentalis
 International Immunopharmacology
 International Journal of Experimental Pathology
 International Journal of COPD
 International Journal of Molecular Sciences
 International Journal of Biochemistry & Cell Biology
 International Journal of Biological Macromolecules
 iScience
 JCI Insight
 Journal of Cellular and Molecular Medicine
 Journal of Pharmacology and Experimental Therapeutics
 Journal of Gastrointestinal and Liver Diseases
 Journal Inflammation (London)
 Journal of Pediatrics
 Journal of Pharmacy and Pharmacology
 Journal of Gastrointestinal and Liver Diseases
 Journal of Inflammation Research
 Journal of Medicinal Plants Research
 Journal of Toxicology & Environmental Health Sciences
 Journal of Cellular Physiology
 Liver International
 Mechanisms of Ageing and Development
 Medical science monitor
 Molecular and Cellular Biochemistry
 Mucosal Immunology
 Oncotarget
 Oncogene
 PLoS One
 Respiratory Research
 Pharmacological Research
 Physiological Reports
 Planta Medica
 Respiration
 Respirology
 Scientific Reports
 Translational Research
 Toxicology
 Toxicology and Applied Pharmacology
 Tohoku Journal of Experimental Medicine
 Virology

MEMBERSHIP IN SOCIETIES

2023	Co-chair of ‘Aging, Metabolism and Vasculature’ at the NAVBO meeting
2022	Co-chair of NIH workshop on Mitochondria in Pathogenesis of Lung and Sleep Disorders
2022	Program Committee for SfRBM’s 29th Annual Meeting
2018-	Membership of the Society for Redox Biology & Medicine

2018-	Membership of the American Heart Association
2012	Facilitator in American Thoracic Association International Conference
2011	Facilitator in American Thoracic Association International Conference
2010-	Membership of the American Thoracic Society
2008-2010	The Associate Faculty Member of Faculty of 1000 Medicine
1998-2006	Member, the Society for Chinese Pharmacology

PUBLICATIONS LIST

H index=47 base on Web of Science

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS (ONLY ENGLISH JOURNALS)

1. Li X, Hegarty K, Lin F, Chang JL, Abdalla A, Dhanabalan K, Solomevich SO, Song W, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H**. Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *Adv Sci (Weinh)*. 2025:e2415824.
2. Qian G, Wang Y, **Yao H**, Zhang Z, Wang W, Xu L, Li W, Huang L, Li X, Gao Y, Wang N, Wang S, Pan J. Involvement of USP7 in aggravating Kawasaki disease by promoting TGFβ2 signaling mediated endothelial-mesenchymal transition and coronary artery remodeling. *Int Immunopharmacol*. 2024, 146:113823.
3. **Yao H***, Wallace J, Peterson AL, Scaffa A, Rizal S, Hegarty K, Maeda H, Chang J, Oulhen N, Kreiling A, Huntington KE, DePaepe ME, Barbosa G, Dennery PA*. Timing and cell specificity of senescence drives postnatal lung development and injury. *Nature Communications*. 2023, 14 (1): 273. *Co-corresponding authors.
4. Teape D, Peterson AL, Ahsan N, Ellis K, Correia N, Luo R, Hegarty K, **Yao H**, Dennery PA. Hyperoxia impairs intraflagellar transport mechanics and causes dysregulated metabolism with resultant decreased cilia length. *Am J Physiol Lung Cell Mol Physiol*, 2023, 324(3): L325-L334.
5. Chang JL, Gong J, Rizal S, Peterson AL, Chang J, Yao C, Dennery PA, **Yao H**. Upregulating carnitine palmitoyltransferase 1 inhibits hyperoxia-induced endothelial cell dysfunction and persistent lung injury. *Respiratory Research*. 2022, 23(1):205.
6. Scaffa A*, Tollefson GA*, **Yao H***, Rizal S, Wallace J, Oulhen N, Carr JF, Uzun A, Dennery PA. Identification of heme oxygenase-1 as a DNA-binding protein. *Antioxidants*. 2022, 11(11): 2135. *Co-first author.
7. Maeda H, **Yao H**, Go H, Huntington KE, De Paepe ME, Dennery PA. Involvement of miRNA-34a regulated Krüppel-like factor 4 expression in hyperoxia-induced senescence in lung epithelial cells. *Respiratory Research*. 2022, 23 (1):340.
8. Sun X, Nakajima E, Norbrun C, Sorkhdini P, Yang AX, Yang D, Ventetuolo CE, Braza J, Vang A, Aliotta J, Banerjee D, Pereira M, Baird G, Lu Q, Harrington EO, Rounds S, Lee CG, **Yao H**, Choudhary G, Klinger JR, Zhou Y. Chitinase 3-like-1 contributes to the development of pulmonary vascular remodeling in pulmonary hypertension. *JCI Insight*. 2022, 7(18):e159578.
9. Gong J, Feng Z, Peterson AL, Carr JF, Lu X, Zhao H, Ji X, Zhao YY, De Paepe ME, Dennery PA, **Yao H**. The pentose phosphate pathway mediates hyperoxia-induced lung vascular dysgenesis and alveolar simplification in neonates. *JCI Insight*. 2021, 6: e137594-e137610.
10. Scaffa M*, **Yao H***, Oulhen N, Wallace J, Peterson AL, Rizal S, Ragavendran A, Wessel G, De Paepe ME, Dennery PA. Single-cell transcriptomics reveals lasting changes in the lung cellular landscape into adulthood after neonatal hyperoxic exposure. *Redox Biol*. 2021, 48:102091. *Co-first author.
11. Gillis SP*, **Yao H***, Rizal S, Maeda H, Chang J, Dennery PA. Loss of the transcriptional repressor Rev-erbα upregulates metabolism and proliferation. *Sci Rep*. 2021, 11: 12356-12367. *Co-first author.
12. Scaffa AM, Peterson AL, Carr JF, Garcia D, **Yao H**, Dennery PA. Hyperoxia causes senescence and increases glycolysis in cultured lung epithelial cells. *Physiol Rep*. 2021, 9: e14839-e14852.

13. Ji X, **Yao H**, Beebe M, Gardenhire DS, Mo H. Tocotrienols: Dietary Supplement for Chronic Obstructive Pulmonary Disease. *Antioxidants*. 2021,10: 883-900.
14. Han H, Peng G, Meister M, **Yao H**, Yang JJ, Zou MH, Liu ZR, Ji X. Electronic Cigarette Exposure Enhances Lung Inflammatory and Fibrotic Responses in COPD Mice. *Front Pharmacol*. 2021, 12:726586.
15. Garcia D, Carr JF, Chan F, Ellis KA, Scaffa A, Ghio AJ, Peterson AL, **Yao H**, Dennery PA. Short exposure to hyperoxia causes mitochondrial dysregulation in cultured lung epithelial cells and alveolar simplification in neonatal mice. *Pediatr Res*. 2021, 90:58-65
16. Gong J, Feng Z, Peterson AL, Carr JF, Vang A, Braza J, Choudhary G, Dennery PA, **Yao H**. Endothelial to mesenchymal transition during neonatal hyperoxia-induced pulmonary hypertension. *J Pathology*. 2020, 252(4):411-422.
17. **Yao H**, Peterson AL, Li J, Xu H, Dennery PA. Heme oxygenase 1 and 2 differentially regulate glucose metabolism and adipose tissue mitochondrial respiration: implications for metabolic dysregulation. *Int J Mol Sci*. 2020, 21:7123-7136.
18. Peterson AL, Carr JF, Dennery PA, **Yao H**. Hyperoxic exposure caused lung lipid compositional changes in neonatal mice. *Metabolites*. 2020, 10: 340-357.
19. Yue L, Vuong B, **Yao H**, Owens BD. Doxycycline preserves chondrocyte viability and function in human and calf articular cartilage ex vivo. *Physiol Rep*. 2020, 8: e14571-e14584.
20. Mao Q, Chu S, Shapiro S, **Yao H**, De Paepe ME. Discordant placental oxygenation and autophagy in twin anemia-polycythemia sequence (TAPS). *Placenta*, 2020, 90: 7-17.
21. **Yao H***, Gong J, Peterson AL, Lu X, Zhang P, Dennery PA. Fatty acid oxidation protects against hyperoxia-induced endothelial cell apoptosis and lung injury in neonatal mice. *Am J Respir Cell Mol Biol*. 2019, 60: 667-677. *Corresponding author
22. Lu Q, Mundy M, Chambers E, Lange T, Newton J, Borgas D, **Yao H**, Choudhary G, Basak R, Oldham M, Rounds S. Alda-1 protects against acrolein-induced acute lung injury and endothelial barrier dysfunction. *Am J Respir Cell Mol Biol*. 2017, 57: 662-673.
23. Ahmad T, Sundar IK, Tormos AM, Lerner CA, Gerloff J, **Yao H**, Rahman I. Shelterin TPP1 Reduction Causes Telomere Attrition and Cellular Senescence via Sirt1 Deacetylase in Chronic Obstructive Pulmonary Disease. *Am J Respir Cell Mol Biol*. 2017,56:38-49.
24. **Yao H**, Sundar IK, Huang Y, Gerloff J, Sellix MT, Sime PJ, and Rahman I. Disruption of SIRT1-mediated regulation of circadian molecular clock and inflammation in COPD. *Am J Respir Cell Mol Biol*. 2015, 53: 782-792.
25. Ahmad T, Sundar IK, Lerner CA, Gerloff J, Tormos AM, **Yao H***, Rahman I. Impaired mitophagy leads to cigarette smoke stress-induced cellular senescence: implication for COPD. *FASEB J*. 2015, 29: 2912-2929. *Co-corresponding author
26. Sundar IK, Ahmad T, **Yao H**, Hwang J, Gerloff J, Lawrence BP, Sellix MT, Rahman I. Influenza A virus-dependent remodeling of pulmonary clock function in a mouse model of COPD/emphysema. *Sci Rep*. 2015, 4:9927.
27. Guo J, **Yao H**, Lin X, Xu H, Dean D, Zhu Z, Liu G, Sime P. IL-13 Induces YY1 through the AKT Pathway in Lung Fibroblasts. *PLoS One*. 2015, 10: e0119039.
28. Lerner CA, Sundar IK, **Yao H**, Gerloff J, Ossip DJ, McIntosh S, Robinson R, Rahman I. Vapors produced by electronic cigarettes and e-juices induce toxicity, oxidative stress, and inflammatory response in lung epithelial cells and in mouse lung. *PLoS One*. 2015, 10: e0116732.
29. **Yao H**, Sundar IK, Ahmad T, Lerner C, Gerloff J, Friedman AE, Phipps RP, Sime PJ, McBurney MW, Guarente L, Rahman I. SIRT1 protects against cigarette smoke-induced lung oxidative stress via FOXO3-dependent mechanism. *Am J Physiol Lung Cell Mol Physiol*. 2014, 306: L816-L828.
30. Sundar IK, **Yao H**, Huang Y, Lyda E, Sime PJ, Sellix MT, Rahman I. Serotonin and Corticosterone Rhythms in Mice Exposed to Cigarette Smoke and in Patients with COPD: Implication for COPD-Associated Neuropathogenesis. *PLoS One*. 2014, 9: e87999.
31. Hwang J, Sundar IK, **Yao H**, Sellix MT, Rahman I. Circadian clock function is disrupted by environmental tobacco/cigarette smoke, leading to lung inflammation and injury via a SIRT1-BMAL1 pathway. *FASEB J*. 2014, 28:176-194.

- Selected for Cover Page of Jan 2014 issue.

32. Xu T, Meng XM, **Yao H**, Li J. IL-2 is a gradually proved potential therapeutic target for hepatocellular carcinoma. *Dig Liver Dis*. 2014, 46: 289-90.
33. **Yao H***, Sundar IK, Gorbunova V, Rahman I. P21-PARP-1 Pathway Is Involved in Cigarette Smoke-Induced Lung DNA Damage and Cellular Senescence. *PLoS One*. 2013, 8: e80007. *Co-corresponding author
34. **Yao H**, Hwang J, Sundar IK, Friedman AE, McBurney MW, Guarente L, Gu W, Kinnula VL, Rahman I. SIRT1 redresses the imbalance of tissue inhibitor of matrix metalloproteinase-1 and matrix metalloproteinase-9 in the development of mouse emphysema and human COPD. *Am J Physiol Lung Cell Mol Physiol*. 2013, 305: L615-L624.
35. Lam HC, Cloonan SM, Bhashyam AR, Haspel JA, Singh A, Sathirapongsasuti JF, Cervo M, **Yao H**, Chung AL, Mizumura K, An CH, Shan B, Franks JM, Haley KJ, Owen CA, Tesfaigzi Y, Washko GR, Quackenbush J, Silverman EK, Rahman I, Kim HP, Mahmood A, Biswal SS, Ryter SW, Choi AM. Histone deacetylase 6-mediated selective autophagy regulates COPD-associated cilia dysfunction. *J Clin Invest*. 2013, 123:5212-5230.
36. **Yao H**, Chung S, Hwang J, Rajendrasozhan S, Sundar IK, Dean DA, McBurney MW, Guarente L, Gu W, Mikko R, Kinnula VL, Rahman I. Sirtuin 1 protects against pulmonary emphysema via FOXO3-mediated reduction of premature senescence. *J Clin Invest*. 2012. 122:2032-2045.
37. Basic VT, Tadele E, Elmabsout AA, **Yao H**, Rahman I, Sirsjö A, Abdel-Halim SM. Exposure to cigarette smoke induces overexpression of von Hippel-Lindau tumor suppressor in mouse skeletal muscle. *Am J Physiol Lung Cell Mol Physiol*. 2012. 303:L519-L527.
38. Sundar IK, Chung S, Hwang JW, Lapek JD Jr, Bulger M, Friedman AE, **Yao H**, Davie JR, Rahman I. Mitogen- and Stress-Activated Kinase 1 (MSK1) Regulates Cigarette Smoke-Induced Histone Modifications on NF- κ B-dependent Genes. *PLoS One*. 2012, 7: e31378.
39. Chung S, Sundar IK, Hwang JW, Yull FE, Blackwell TS, Kinnula VL, Bulger M, **Yao H**, and Rahman I. NF- κ B Inducing Kinase, NIK Mediates Cigarette Smoke/TNF α -Induced Histone Acetylation and Inflammation through Differential Activation of IKKs. *PLoS One*. 2011, 6: e23488.
40. Nadtochiy SM, **Yao H**, McBurney MW, Gu W, Guarente LP, Rahman I, Brookes PS. SIRT1 mediated acute cardioprotection. *Am J Physiol Heart Circ Physiol*. 2011, 301: H1506-1512.
41. Hwang J, Rajendrasozhan S, **Yao H**, Chung S, Sundar IK, Huyck HL, Pryhuber GS, Kinnula VL, Rahman I. FoxO3 deficiency leads to increased susceptibility to cigarette smoke-induced inflammation, airspace enlargement, and chronic obstructive pulmonary disease. *J Immunol*. 2011, 187: 987-998.
42. **Yao H**, Arunachalam G, Hwang J, Chung S, Sundar IK, Kinnula VL, Crapo JD, Rahman I. Extracellular superoxide dismutase protects against pulmonary emphysema by attenuating oxidative fragmentation of extracellular matrix. *Proc Natl Acad Sci USA*. 2010.107:15571-15576.
43. **Yao H**, Hwang J, Moscat J, Diaz-Meco MT, Leitges M, Kishore N, Li X, Rahman I. PKC ζ mediates cigarette smoke/aldehyde- and lipopolysaccharide-induced lung inflammation and histone modifications. *J Biol Chem*. 2010, 285: 5405-5416.
44. Caito S, Rajendrasozhan S, Cook S, Chung S, **Yao H**, Friedman AE, Brookes PS and Rahman I. SIRT1 is an Redox Sensitive Deacetylase Which is Post-translationally Modified by Oxidants and Carbonyl Stress. *FASEB J*. 2010. 24:3145-3159.
45. Rajendrasozhan S, Chung S, Sundar IK, **Yao H**, Rahman I. Targeted disruption of NF- κ B1 (p50) augments cigarette smoke-mediated lung inflammation and emphysema in mice: a critical role of p50 in chromatin remodeling. *Am J Physiol Lung Cell Mol Physiol*. 2010, 298: L197-L209.
46. Caito S, Hwang J, Chung S, **Yao H**, Sundar IK, and Rahman I. PARP-1 inhibition does not restore oxidant-mediated reduction in SIRT1 activity. *Biochem Biophys Res Commun*. 2010, 392: 264-270.
47. Arunachalam G, **Yao H**, Sundar IK, Caito S, Rahman I. SIRT1 regulates oxidant- and cigarette smoke-induced eNOS acetylation in endothelial cells: Role of resveratrol. *Biochem Biophys Res Commun*. 2010, 393:66-72.

48. Rajendrasozhan S, Hwang JW, **Yao H**, Kishore N, Rahman I. Anti-inflammatory effect of a selective IkappaB kinase-beta inhibitor in rat lung in response to LPS and cigarette smoke. *Pulm Pharmacol Ther.* 2010, 23:172-181.
49. Chung S, Sundar IK, **Yao H**, Ho Y, and Rahman I. Glutaredoxin1 regulates cigarette smoke-mediated lung inflammation through differential modulation of Ikb kinases in mice: impact on chromatin modifications. *Am J Physiol Lung Cell Mol Physiol.* 2010. 299: L192-203.
50. Hwang JW, Chung S, Sundar IK, **Yao H**, Arunachalam G, McBurney M and Rahman I. Cigarette smoke-induced autophagy is regulated by SIRT1-PARP-1-dependent mechanism: implication in pathogenesis of COPD. *Arch Biochem Biophys.* 2010. 500:203-209.
51. Sundar IK, Chung S, Hwang J, Arunachalam G, Cook S, **Yao H**, Mazur W, Kinnula VL, Fisher AB, and Rahman I. Peroxidoredoxin 6 differentially regulate acute and chronic cigarette smoke-mediated lung inflammatory response and injury. *Exp Lung Res.* 2010. 36:451-462.
52. Arunachalam G, Sundar IK, Hwang JW, **Yao H**, Rahman I. Emphysema is associated with increased inflammation in lungs of atherosclerosis-prone mice by cigarette smoke: implications in comorbidities of COPD. *J Inflamm (Lond).* 2010. 7:34.
53. Adenuga D, Caito S, **Yao H**, Sundar IK, Hwang JW, Chung S, Rahman I. Nrf2 Deficiency influences susceptibility to steroid resistance via HDAC2 reduction. *Biochem Biophys Res Commun.* 2010. 403:452-456.
54. Adenuga D, **Yao H**, March TH, Seagrave J, Rahman I. Histone Deacetylase 2 is Phosphorylated, Ubiquitinated and Degraded by Cigarette Smoke. *Am J Respir Cell Mol Biol.* 2009, 40: 464-473.
55. Yang SR, **Yao H**, Rajendrasozhan S, Chung S, Edirisinghe I, Valvo S, Fromm G, McCabe Jr MJ, Sime PJ, Phipps RP, Li JD, Bulger M, Rahman I. RelB is differentially regulated by IKK α in B Cells and Mouse Lung by Cigarette Smoke. *Am J Respir Cell Mol Biol.* 2009, 40:147-158.
56. **Yao H**, Edirisinghe I, Yang SR, Rajendrasozhan S, Kode A, Caito S, Adenuga D, Rahman I. Genetic ablation of NADPH oxidase enhances susceptibility to cigarette smoke-induced lung inflammation and injury in mice. *Am J Pathol.* 2008, 172:1222-1237.
57. **Yao H**, Yang SR, Edirisinghe I, Rajendrasozhan S, Caito S, Adenuga D, O'Reilly M, Rahman I. Disruption of p21 Attenuates Lung Inflammation Induced by Cigarette Smoke, LPS and fMLP in Mice. *Am J Respir Cell Mol Biol.* 2008 39:7-18.
 - This paper was evaluated and recommended into Faculty of 1000 Medicine.
 - Editorial comments (*Am J Respir Cell Mol Biol.* 2008 39:1-6) on this paper that our work changes the paradigm during the development of cigarette smoke-induced lung injury and emphysema.
58. **Yao H**, Edirisinghe I, Rajendrasozhan S, Yang SR, Caito S, Adenuga D, Rahman I. Cigarette smoke-mediated inflammatory and oxidative responses are strain dependent in mice. *Am J Physiol Lung Cell Mol Physiol.* 2008 294: L1174-L1186.
59. Edirisinghe I, Yang SR, **Yao H**, Rajendrasozhan S, Caito S, Adenuga D, Wong C, Rahman A, Phipps RP, Jin ZG, Rahman I. VEGFR-2 inhibition augments cigarette smoke-induced oxidative stress and inflammatory responses leading to endothelial dysfunction. *FASEB J.* 2008, 22: 2297-2310.
60. Yang SR, Valvo S, **Yao H**, Kode A, Rajendrasozhan S, Edrisinghe I, Caito S, Adenuga D, Henry R, Fromm G, Maggirwar S, Li JD, Bulger MD, Rahman I. IKK α Causes Chromatin Modification on Pro-inflammatory Genes by Cigarette Smoke in Mouse Lung. *Am J Respir Cell Mol Biol.* 2008, 38: 689-698.
61. Yue L, Shen Y, Feng L, Chen F, **Yao H**, Liu L, Wu Q, Wang H. Blockage of the formation of new blood vessels by recombinant human endostatin contributes to the regression of rat adjuvant arthritis. *Eur J Pharmacol.* 2007, 567: 166-170.
62. **Yao H***, Mao L, Zhu J. Protective effects of pravastatin in murine lipopolysaccharide-induced acute lung injury. *Clin Exp Pharmacol Physiol.* 2006, 33: 793-797. *Corresponding author
63. **Yao H***, Zhu J, Zhao M, Lu Y. Losartan Attenuates Bleomycin-induced Pulmonary Fibrosis in Rats. *Respiration.* 2006, 73: 236-242. *Corresponding author
64. **Yao H***, Yue L. Effect and mechanisms of FR167653, a dual inhibitor of TNF- α and IL-1, on BCG plus LPS induced-liver injury. *Inflamm Res.* 2005, 54: 471-477. *Corresponding author

65. **Yao H***, Li J, Chen J. FR167653 attenuates murine immunological liver injury. *World J Gastroenterol*. 2004, 10: 2267-2271. *Corresponding author
66. **Yao H***, Yue L, Chen J. Effects and mechanisms of FR167653, a dual inhibitor of interleukin-1 and tumor necrosis factor, on adjuvant arthritis in rats. *Int Immunopharmacol*. 2004, 4: 1625-1632. *Corresponding author
67. **Yao H***, Li J, Chen J. Effect of Losartan, An Angiotensin II Antagonist, on Hepatic Fibrosis Induced by CCl₄ in Rats. *Dig Dis Sci*. 2004, 49: 1589-1594. *Corresponding author
68. **Yao H**, Li J, Chen J, Xu S. A771726, the active metabolite of leflunomide, inhibits TNF- α and IL-1 from Kupffer cells. *Inflammation*. 2004, 28: 97-103.
69. **Yao H**, Li J, Chen JQ, Xu S. The inhibitory effect of leflunomide on hepatic fibrosis induced by CCl₄ in rats. *Acta Pharmacol Sin*. 2004, 25: 915-920.
70. **Yao H**, Li J, Chen J, Xu S. Leflunomide attenuates hepatocyte injury by inhibiting Kupffer cells. *World J Gastroenterol*. 2004, 10: 1608-1611.
71. **Yao H**, Li J, Jin Y, Zhang Y, Li C, Xu S. Effect of leflunomide on immunological liver injury in mice. *World J Gastroenterol*. 2003, 9: 320-323.
72. Li J, **Yao H**, Jin Y, Zhang Y, Li C, Li Y, Xu S. Pharmacokinetics of leflunomide in Chinese healthy volunteers. *Acta Pharmacol Sin*. 2002, 23: 551-555.

OTHER PEER-REVIEWED PUBLICATIONS (ONLY ENGLISH JOURNALS)

1. Maeda H, Li X, Go H, Dennerly PA, **Yao H**. miRNA signatures in bronchopulmonary dysplasia: implications in the biomarkers, pathogenesis, and therapeutic options. *Front Biosci (Landmark Ed)*. 2024, 29(7):271.
2. Dennerly PA, **Yao H**. Metformin promotes angiogenesis in neonatal lung injury: a new deal of an old drug. *Am J Respir Cell Mol Biol*. 2024, 71(4):386-387.
3. Dennerly PA, **Yao H**. Emerging role of cellular senescence in normal lung development and perinatal lung injury. *Chin Med J Pulm Crit Care Med*. 2024, 2(1):10-16.
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13. Hwang J*, **Yao H***, Caito S, Sundar IK, Rahman I. Redox regulation of sirt1 in inflammation and cellular senescence. *Free Radic Biol Med*. 2013, 61C: 95-110. *co-first author.
14. Sundar IK, **Yao H**, Rahman I. Oxidative stress and chromatin remodeling in chronic obstructive pulmonary disease and smoking-related diseases. *Antioxid Redox Signal*. 2013, 18:1956-71.

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PREPRINT

1. Lin F, Lu W, Dennery PA, **Yao H**. Characterization of hyperoxia-induced senescent lung macrophages in neonatal mice. bioRxiv, 2025. doi: <https://doi.org/10.1101/2025.05.09.652066>

BOOKS AND BOOK CHAPTERS

1. Hwang J, Sundar IK, **Yao H**, Rahman I. SIRT1 and inflammaging in chronic obstructive pulmonary disease. In Rahman I and Bagchi D (eds). *Inflammation, Advancing Age and Nutrition, 1st Edition*. Elsevier. 2013, pp. 183-191.
2. Sundar IK, **Yao H**, Kirkham PA, Rahman I. Smoking, Oxidative/Carbonyl Stress, and Regulation of Redox Signaling in Lung Inflammation. In Ismail Laher (ed.), *Systems Biology of Free Radicals and Anti-Oxidants*. Springer. 2013. DOI 10.1007/978-3-642-30018-9_65.
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4. **Yao H**, Rahman I. Experimental Models to Study Cigarette Smoke-Induced Oxidative Stress In Vitro and In Vivo in Preclinical Models, and in Smokers and Patients with Airways Disease. In: S. Basu and L. Wiklund (eds.), *STUDIES ON EXPERIMENTAL MODELS*, Oxidative Stress in Applied Basic Research and Clinical Practice 6. Springer. 2011. pp. 399-420
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ABSTRACTS (ONLY FIRST OR SENIOR AUTHOR ABSTRACTS)

1. Li X, Hegarty K, Lin F, Chang JI, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *2025 ATS Conference*. Poster discussion.
2. Li X, Hegarty K, Lin F, Chang JI, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *2025 PAS Conference*. Oral presentation.
3. Li X, Hegarty K, Lin F, Chang JI, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *2025 ESPR Conference*. Oral presentation.
4. Li X, Hegarty K, Lin F, Chang JI, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *2024 SfrBM Conference*. Poster presentation.
5. Li X, Hegarty K, Lin F, Chang JI, Roder K, Yao C, Lu W, Carmeliet P, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a inhibits neonatal hyperoxia-induced pulmonary vascular remodeling by repressing endothelial-mesenchymal transition. *2024 Advance in Right Ventricle Conference*. Poster presentation.
6. **Yao H,** Hegarty K, Li X, Chaudhary G, Dennery PA. Reduced endothelial Cpt1a causes EndoMT and pulmonary vascular remodeling in a murine model of bronchopulmonary dysplasia-associated pulmonary hypertension. *2024 PAS Annual Meeting*. Oral presentation.
7. **Yao H,** Hegarty K, Suh J, Li X, Dennery PA. Neonatal hyperoxia impairs mitophagy, leading to increased cytosolic mtDNA release and cGAS-STING pathway activation in the lung. *2024 ATS International Conferences*. Poster discussion.
8. Hegarty K, Chang JL, Braza J, Chaudhary G, Dennery PA, **Yao H.** Decreased endothelial Cpt1a causes neonatal hyperoxia-induced pulmonary vascular remodeling by upregulating EndoMT. *2023 SfrBM Conference*. Poster presentation.
9. **Yao H,** Zhang M, Hegarty K, Albertine KH, Dennery PA. Ontogeny and contribution of cellular senescence to normal lung development. *2023 SfrBM Conference*. Poster presentation.
10. Hegarty K, Chang J, Braza J, Choudhary G, Dennery PA, **Yao H.** Endothelial Cpt1a reduction causes pulmonary vascular remodeling by upregulating EndoMT. *2023 North American Vascular Biology Organization meeting*. Poster presentation.
11. Feng Z, Gong J, Lu X, Hegarty K, Dennery PA, **Yao H.** Activating mitophagy attenuates hyperoxia-induced impaired angiogenesis and lung injury in neonatal mice. *2023 ATS International Conferences*. Poster discussion.
12. **Yao H,** Zhang M, Hegarty K, Albertine KH, Dennery PA. Ontogeny and contribution of cellular senescence to normal lung development. *2023 PAS Annual Meeting*. Poster presentation.
13. Feng Z, Hunter J, Hegarty K, Dennery PA, **Yao H.** Damaged mitochondria contribute to hyperoxia-induced impaired angiogenesis and lung injury in neonatal mice. *2023 PAS Annual Meeting*. Poster presentation.
14. Feng Z, Gong J, Lu X, Hegarty K, Dennery PA, **Yao H.** Enhancing mitophagy inhibits hyperoxia-induced impaired angiogenesis and lung injury in neonatal mice. *2022 NISBRE Conferences*. Poster presentation.
15. Maeda H, Hegarty K, Dennery PA, **Yao H.** Fatty acid synthesis during postnatal lung development and injury in mice. *2022 SfrBM Conference*, Poster presentation.
16. **Yao H,** Peterson AL, Rizal S, Chang J, Dennery PA. Timing of Senescence Drives Postnatal Lung Development And Injury. *2022 ATS International Conferences*. Poster discussion.
17. **Yao H,** Peterson AL, Rizal S, Chang J, Dennery PA. Cellular senescence paradoxically drives postnatal lung development and injury in mice. *2022 Pediatric Academic Societies (PAS) Annual Meeting*. Poster presentation.

18. Chang J, Rizal S, Dennery PA, **Yao H**. Enhancing fatty acid oxidation via upregulating Cpt1a inhibits hyperoxia-induced persistent lung function decline, alveolar simplification and vascular remodeling in mice. *2021, Lifespan Research Day*. Poster
19. Chang J, Rizal S, Dennery PA, **Yao H**. Upregulating Carnitine Palmitoyltransferase 1 Attenuates Hyperoxia-Induced Persistent Alveolar Simplification And Lung Vascular Remodeling In Mice. *2021 SjRBM Conference*, Poster presentation.
20. Chang J, Peterson AL, Zhao YY, Dennery PA, **Yao H**. The Pentose Phosphate Pathway Mediates Hyperoxic Lung Vascular Dysgenesis and Alveolar Simplification in Neonatal Mice. *2021 ATS International Conferences*. Poster presentation.
21. Chang J, Rizal S, Peterson AL, Dennery PA, **Yao H**. Increased pentose phosphate pathway contributes to hyperoxia-induced lung vascular dysgenesis and simplified alveolarization in neonates. *2021 Pediatric Academic Societies (PAS) Annual Meeting*, Oral presentation.
22. Gong J, Feng Z, Lu X, Peterson AL, Ji X, Dennery PA, **Yao H**. Pentose Phosphate Pathway Controls Endothelial Cell Proliferation During Hyperoxic Lung Injury in Neonates. *Am J Respir Crit Care Med*, 2020, 201: A4663. Poster discussion.
23. Gong J, Feng Z, Lu X, Peterson AL, Dennery PA, **Yao H**. Fatty acid oxidation attenuates hyperoxia-induced endothelial-to-mesenchymal transition. *2019 ATS Grover Conference*, Sept 4-8, 2019. Sedalia, Colorado. Poster presentation.
24. Gong J, Lu X, Peterson AL, Dennery PA, **Yao H**. Hyperoxic exposure enhances autophagy to remove dysfunctional mitochondria in lung endothelial cells during neonatal lung injury. *2019 Northeast Region IDeA Conference*, Aug 14-16, 2019. Bretton Woods, New Hampshire. Poster presentation
25. Gong J, Lu X, Peterson AL, Dennery PA, **Yao H**. Hyperoxic exposure impairs mitochondrial respiration and dynamics in lung endothelial cells during neonatal lung injury. *2019 RI NIH IDeA Symposium*, Poster presentation, 6/7/2019.
26. Gong J, Lu X, Peterson AL, Dennery PA, **Yao H**. Hyperoxic exposure causes mitochondrial dysfunction but enhances autophagy in lung endothelial cells during neonatal lung injury. *Pediatric Academic Societies Conference*, 2019, Apr 24-May 1, Baltimore, Maryland (Poster)
27. Gong J, Feng Z, Lu X, Abigail P, Dennery PA, **Yao H**. Role of fatty acid oxidation in hyperoxia-induced EndoMT: implication in pathogenesis of pulmonary hypertension. *Am J Respir Crit Care Med*, 2019, 199: A6035. Poster discussion.
28. Gong J, Feng Z, Abigail P, Dennery PA, **Yao H**. Role of fatty acid oxidation in hyperoxia-induced endothelial-to-mesenchymal transition in lung endothelial cells. *Free Radical Biology Medicine*. 2018;128: S45. (Oral Presentation).
29. Feng Z, Dennery PA, **Yao H**. Hyperoxic exposure causes endothelial-to-mesenchymal transition, implications for the pathogenesis of pulmonary hypertension. *Brown Summer Research Symposium*, Aug 2, 2018 (Poster)
30. Gong J, Feng Z, Peterson A, Dennery PA, **Yao H**. Hyperoxic exposure followed by air recovery causes endothelial-to-mesenchymal transition, implications for the pathogenesis of pulmonary hypertension. *Brown Pediatric Scholarship Celebration*, Sept 12, 2018 (Poster)
31. **Yao H**, Zhao H, Peterson A, Dennery PA. Hyperoxic exposure followed by air recovery increased glycolysis and pentose phosphate pathway, which sustains proliferation in lung endothelial cells. *2018 RI NIH IDeA Symposium*, Poster presentation, 6/8/2018
32. **Yao H**, Zhao H, Peterson AL, Dennery PA. Hyperoxic Exposure Causes Metabolic Shifts Towards Pentose Phosphate Pathway, Leading to Abnormal Proliferation in Lung Endothelial Cells. *Am J Respir Crit Care Med*. 2018;197: A6116 (Poster discussion)
33. **Yao H**, Carr JF, Peterson AL, Dennery PA. Hyperoxic Exposure Reduces Glycolysis And Mitochondrial Respiration But Increases Mitochondrial Utilization of Fatty Acid in Lung Endothelial Cells. *Am J Respir Crit Care Med*. 2017;195: A6921 (Poster discussion)
34. **Yao H**, Carr JF, Peterson AL, Dennery PA. Hyperoxia increases mitochondrial utilization of fatty acids in neonatal lung endothelial cells: implications for injury and repair. *Pediatric Academic Societies (PAS) Annual Meeting*. 2017, San Francisco

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37. **Yao H**, Ahmad T, Sundar IK, Rahman I. Cigarette smoke-induced cellular senescence in lung fibroblasts via mitochondrial dysfunction. In the '2014 Pittsburgh-Munich International Lung Conference-Aging and Lung Disease: Clinical Impact and Cellular and Molecular Pathways' at the University Club in Pittsburgh, Pennsylvania.
38. **Yao H**, Sundar IK, Ahmad T, Sime PJ, Phipps R, McBurney MW, Guarente L, Gu W, Rahman I. SIRT1 Protects Against Cigarette Smoke-Induced Lung Oxidative Stress Via FOXO3-Dependent Mechanism. *Am J Respir Crit Care Med*. 2014, 189: A6334 (Oral presentation).
39. **Yao H**, Sundar IK, Gorbunova V, Rahman I. Involvement Of p21-PARP-1 Pathway In Cigarette Smoke-Induced DNA Damage And Cellular Senescence In Mouse Lungs. *Am J Respir Crit Care Med*. 2013, 187: A4787 (Poster).
40. **Yao H**, Chung S, Hwang J, Rahman I. Cigarette smoke causes a residue-specific histone methylation and its cross-talk with histone acetylation in human lung epithelial cells. *Am J Respir Crit Care Med*. 2012, 185, A3474. (Poster)
41. **Yao H**, Chung S, Hwang J, Sundar IK, McBurney MW, Guarente L, Gu W, Rahman I. Sirtuin 1 Attenuates Pulmonary Neutrophilic Inflammation In Mice Exposed To Cigarette Smoke. *Am J Respir Crit Care Med*. 2011, 183: A5769. (Poster discussion)
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43. **Yao H**, Chung S, Hwang J, Sundar IK, Arunachalam G, Cook SE, Rajendrasozhan S, McBurney MW, Rahman I. Genetic deficiency of SIRT1 enhances elastase-induced emphysema in mice. *Am J Respir Crit Care Med*. 2010, 181: A3878. (Poster discussion)
44. **Yao H**, Edirisinghe I, Rajendrasozhan S, Yang SR, Kode A, Caito S, Adenuga D, O'Reilly M, Rahman I. ECSOD attenuates cigarette smoke-mediated lung inflammatory response and extracellular matrix degradation in mice. *Am J Respir Crit Care Med*. 2009, 179: A4162. (Poster discussion)
45. **Yao H**, Edirisinghe I, Rajendrasozhan S, Yang SR, Caito S, Adenuga D, Rahman I. Cigarette Smoke-Mediated Inflammatory and Oxidative Responses Are Strain Dependent in Mice. *Am J Respir Crit Care Med*. 2008, 177: A228. (Poster)
46. **Yao H**, Edirisinghe I, Rajendrasozhan S, Yang SR, Kode A, Caito S, Adenuga D, O'Reilly M, Rahman I. Targeted Disruption of p21CIP1/WAF1/SDI1 Attenuates Acute Cigarette Smoke-Induced Lung Inflammation in Mice. *Am J Respir Crit Care Med*. 2007, 176: A256. (Poster)
47. **Yao H**, Rajendrasozhan S, Yang SR, Edirisinghe I, Kode A, Caito S, Adenuga D, Rahman I. Genetic Ablation of NADPH Oxidase Enhances Susceptibility to Acute Cigarette Smoke-Induced Inflammation in Mice. *Am J Respir Crit Care Med*. 2007, 176: A256. (Poster discussion)

INVITED PRESENTATIONS

- 2025 Shanghai Children's Medical Center of Shanghai Jiao Tong University, May 2025
- 2025 Shanghai Institute of Materia Medica Chinese Academy of Sciences, May 2025
- 2025 Metabolism Class Guest Lecture for Brown Undergraduates, April 15
- 2025 Cardiac & Vascular Biology Research Seminar, Brown University, Feb 28
- 2024 Lung Aging Working Group of the ATS/RCMB (Annual Retreat), Dec 9
- 2024 Treasure Coast Translational Science Lecture Series at Florida International University, Jul 9
- 2024 School of Veterinary Medicine, at Louisiana State University, Feb 19
- 2023 Endothelial Injury and Repair: COBRE/CPVB, Sept 15.

- 2023 Yijishan Hospital of Wannan Medical College, Anhui, July 18.
- 2023 School of Medicine, Zhejiang University, Huangzhou, July 17.
- 2023 School of Pharmacy, Jinan University, Guangzhou, July 14.
- 2023 State Key Laboratory of Respir Disease, Guangzhou Medical University, July 13.
- 2023 The forum of Cross-strait Respiratory Diseases, April 1.
- 2022 The 9th annual CPVB COBRE EAC meeting, Providence, Dec 8.
- 2022 Multi-COBRE Seminar Series, Virtual/oral presentation, May 10.
- 2022 2022 RI IDEa symposium, oral presentation, June 10.
- 2021 The Chinese-American Lung Association, May 14.
- 2021 Center for Diagnostics & Therapeutics, Georgia State University, June 15.
- 2021 Neonatal-Perinatal Medicine, University of Oklahoma Health Science Ctr, July 6.
- 2021 Pediatric Research Colloquium, Women & Infants Hospital of RI, Oct 8.
- 2021 The 8th annual CPVB COBRE EAC meeting, Providence, Oct 28.
- 2020 The 8th annual CPVB COBRE EAC meeting, Providence, Sept 10.
- 2020 Talk at the CPVB COBRE bi-weekly seminar, Providence, RI, Dec 11.
- 2019 The CVRC Data Club: Metabolic reprogramming in endothelial cells during hyperoxic lung injury. March 20.
- 2019 The 7th annual CPVB COBRE EAC meeting, Providence, Oct 24.
- 2018 Department of Pulmonary and Critical Care Medicine of the Brigham and Women's Hospital in Harvard University, March 23.
- 2018 The CardioPulmonary Vascular Biology COBRE Sept 7.
- 2018 The 6th annual CPVB COBRE EAC meeting, Providence, Nov 8.
- 2017 The 8th Respiratory Symposium of Shandong Province, Jinan, China, May 4.
- 2017 Guangzhou Institute of Respiratory Disease, Guangzhou, China, May 8.
- 2016 The Endothelial Injury and Repair: COBRE/CPVB, Oct 28.
- 2015 Division of Pulmonary and Critical Care Medicine of the Mayo Clinic, Nov 6.
- 2015 Department of Comparative Biomedical Sciences of the Louisiana State University Veterinary Medical Sciences, Jan 26.
- 2015 AstraZeneca Innovation Center China, April 14.
- 2015 Molecular Biology, Cell Biology & Biochemistry of the Brown University, July 30.
- 2014 Department of Pathology and Laboratory Medicine at the University of Vermont College of Medicine, Dec 3.
- 2013 Hefei Institute of Physical Science, Chinese Academy of Sciences, China.
- 2013 School of Pharmacy, Anhui Medical University, China.
- 2012 Lung Biology and Disease Program and Department of Environmental Medicine, University of Rochester, on Sept 18, 2012.
- 2009 The postdoctoral seminar at the Department of Environmental Medicine, University of Rochester on Feb 12, 2009.

CONFERENCE ORAL PRESENTATIONS

- 2025 Oral presentation at PAS meeting, Honolulu, April 27
- 2025 Oral presentation at ESPR meeting, Philadelphia, March 15
- 2024 Oral presentation at PAS meeting, Toronto, May 4
- 2024 Oral presentation at ESPR meeting, Philadelphia, March 9
- 2023 Nano talk at the North American Vascular Biology Organization Meeting, Oct 17
- 2018 Oral presentation at the 25th Annual Meeting of the Society for Redox Biology and Medicine, Chicago, IL, Nov 15.
- 2017 Oral presentation at the 24th Annual Meeting of the Society for Redox Biology and Medicine, Baltimore, Maryland, Dec 1.
- 2016 Oral presentation at the Endothelial Injury and Repair: COBRE/CPVB, Oct 28.

- 2014 Oral presentation in the American Thoracic Society International Conference in San Diego, CA from May 16-May 21.
- 2010 Oral presentation in the 8th European Respiratory Society (ERS) Lung Science Conference in Estoril, Portugal from March 26-28, 2010.

GRANTS

Active research support

NHLBI 1R01HL166327-01A1 (PI: Yao)

07/01/2023-04/30/2027

Metabolic mechanisms underlying bronchopulmonary dysplasia-associated pulmonary hypertension

NIGMS 1P30GM149398 (PI: Yao for CIOF Core)

03/01/2024-05/31/2028

Cell Isolation and Organ Function (CIOF) Core of CPVB/COBRE

Summer 2025 Brown UTRA Award (Andy Doan)

6/2/2025-8/8/2025

Metabolism dysregulation of right ventricle of pulmonary hypertension

Role: Mentor

Completed research support

Ocean State Research Institute CPVB COBRE pilot project (PI: Yao)-NCE

12/1/2024-05/31/2025

Senescence as a Novel Mechanism of Lung Vascular Anomaly in Down Syndrome

Ocean State Research Institute CPVB COBRE pilot project (PI: Yao)

01/17/2024-05/31/2024

Senescence as a Novel Mechanism of Lung Vascular Anomaly in Down Syndrome

Rhode Island Foundation Award (PI: Yao)

04/01/2023-03/30/2024

Upregulating Cpt1a inhibits hyperoxia-induced pulmonary hypertension by decreasing EndoMT

NIH/ NIGMS P20GM103652 (MPI: Choudhary and Harrington; Project 1 PI: Yao)

7/20/2018-5/31/2023

“Endothelial Injury and Repair: CardioPulmonary Vascular Biology COBRE”

Project 1 Title: “Metabolic mechanisms of impaired vascularization during hyperoxic lung injury”

Falk Medical Research Trust Catalyst Award-NCE (PI: Yao)

11/30/2020 – 8/31/2021

Dr. Ralph and Marian Falk Medical Research Trust

Identification of carnitine palmitoyltransferase 1a as a novel target for bronchopulmonary Dysplasia

Falk Medical Research Trust Catalyst Award (PI: Yao)

11/30/2019 – 11/29/2020

Dr. Ralph and Marian Falk Medical Research Trust

Identification of carnitine palmitoyltransferase 1a as a novel target for bronchopulmonary Dysplasia

Fall 2023 Brown Undergraduate Teaching and Research Awards (UTRA) (Ivy Lin)

9/15/2023-12/20/2023

Fatty acid synthesis during postnatal lung development and injury

Role: Mentor

Fall 2023 Brown UTRA Award (Bailey Merlino)

9/15/2023-12/20/2023

Role of fatty acid oxidation in neonatal hyperoxia-induced EndoMT

Role: Mentor

Fall 2023 Brown UTRA Award (Natali Chung)

9/15/2023-12/20/2023

Mitophagy in neonatal hyperoxia-induced lung injury

Role: Mentor

Spring 2023 Brown UTRA (Jared Hunter)

1/30/2023-4/28/2023

Mitochondrial damage in hyperoxia-induced impairment of angiogenesis

Role: Mentor

Spring 2023 Brown UTRA Award (Joseph Suh)

1/30/2023-4/28/2023

Fatty acid synthesis during postnatal lung development and injury

Role: Mentor

Spring 2022 Brown UTRA Award (Jason Chang)

2/20/2022-5/10/2022

Upregulating Cpt1a Attenuates Hyperoxia-Induced Persistent Lung Injury

Role: Mentor

Spring 2021 Brown UTRA Award (Julia Chang)

1/20/2021-4/10/2021

Enhancing carnitine palmitoyltransferase 1a protects against hyperoxia-induced lung endothelial cell dysfunction in vitro

Role: Mentor

Summer 2018 Brown UTRA Award (PI: Zihang Feng)

6/4/2018-8/10/2018

Role of glycolysis in hyperoxia-induced lung endothelial cell dysfunction

Role: Mentor

Ocean State Research Institute CPVB COBRE pilot project (PI: Yao)

06/01/2016-05/31/2017

Metabolic dysregulation in pulmonary endothelial dysfunction during hyperoxic lung injury

American Lung Association Biomedical Grant RG-266456-N (PI: Yao)

07/01/2013-06/31/2015

SIRT1 regulation in telomere attrition in lung cellular senescence

National Natural Science Foundation of China (PI: Yao)

1/1/2005-12/31/2007

Role of epithelial-mesenchymal transition in the pathogenesis of pulmonary fibrosis

UNIVERSITY TEACHING, ADVISING and MENTORING ROLES

Undergraduate Students

Jun 2025-Aug 2025	Andy Doan, an undergraduate student of Brown University, Received UTRA
Jan 2024-May 2024	Ivy Lin, an undergraduate student of Brown University, Independent study
Jan 2024-May 2024	Bailey Merilo, an undergraduate student of Brown University, Independent study
Jan 2024-May 2024	Joseph Suh, an undergraduate student of Brown University, Volunteer research
Sept 2023-Dec 2023	Ivy Lin, an undergraduate student of Brown University, Received Undergraduate Teaching and Research Awards (UTRA)
Sept 2023-Dec 2023	Bailey Merlino, an undergraduate student of Brown University, Received UTRA
Sept 2023-Dec 2023	Natali Chung, an undergraduate student of Brown University, Received UTRA
Jan 2023-April 2023	Elijah McCray, an undergraduate student of Brown University, volunteer research
Jan 2023- April 2023	Jored Hunter, an undergraduate student of Brown University, Received UTRA
Jan 2023- April 2023	Joseph Suh, an undergraduate student of Brown University, Received UTRA
Mar 2020-May 2022	Jason Chang, an undergraduate student of Brown University, volunteer research, independent study, and received UTRA
Sept 2019-May 2021	Julia Chang, an undergraduate student of Brown University, volunteer research, independent study, and received UTRA
Jun 2021-Dec 2021	Kim Christina, an undergraduate student of Brown University, volunteer research
Sept 2016-May 2020	Aaron Feng, an undergraduate student of Brown University, volunteer research, independent study, and received UTRA
Sep 2003-Jun 2006	Teaching Pharmacology at Zhejiang University (60 students each year)
Sep 2003-Jun 2006	Teaching Clinical Pharmacology at Zhejiang University (60 students each year)

Graduate Students

Sept 2024-May 2026	Elena Pearson, a Biotechnology Masters student of Brown University
May 2017-May 2020	David Garcia, co-mentored him for writing NIH F31 Predoctoral Fellowship
Sept 2004- May 2006	Jianping Zhu, Assist Prof. Zhejiang University

Postdoctoral trainees

Oct 2025-	Lauren Gaspar, PhD
Feb 2025-	Guanghui Qian, PhD, Visiting Scholar, Soochow University
Sept 2024-Jan 2025	Amro Abdalla, PhD
Sept 2023-Oct 2024	Xiaoyun Li, PhD, Associate Prof., Jinan University, China
Sept 2020-Sept 2022	Hajime Maeda, MD, PhD (co-mentor), Assoc Prof., Fukushima Medical University, Fukushima, Japan
Jun 2018-Dec 2019	Jiannan Gong, MD, PhD, Deputy Chief Physician, Second Hospital of Shanxi Medical University, China
Oct 2018-Oct 2019	Xuexin Lu, MD, PhD, Medical Doctor, Ascension St John Hospital, Detroit, Michigan
Jan 2017-Jan 2018	Haifeng Zhao, PhD, Professor, Shanxi Medical University, China
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