

CIRRICULUM VITAE

Dustin R. Fraidenburg, M.D.

Assistant Professor
Department of Medicine
Division of Pulmonary, Critical Care, Sleep, and Allergy
University of Illinois at Chicago

Education

2005 B.S. Michigan State University; East Lansing, MI.
2009 M.D. Wayne State University; Detroit, MI.

Residency

2009 - 2012 Internal Medicine; University of Illinois at Chicago; Chicago, IL.

Fellowship

2012 – 2015 Pulmonary, Critical Care Medicine; University of Illinois at Chicago, Chicago, IL.
2015 – 2016 Chief Fellow, Pulmonary, Critical Care Medicine; University of Illinois at Chicago, Chicago, IL.

Academic Positions Held

2009 – 2010 Assistant in Clinical Medicine
2010 – 2016 Associate in Clinical Medicine
2016 – 2017 Instructor of Medicine
2017 – Assistant Professor
2017 – Associate Program Director; Pulmonary, Critical Care Fellowship
2017 – Director, Pulmonary Hypertension Program
2021 – Chair, Institutional Review Board, University of Illinois at Chicago

Honors and Awards

2011 Resident nominated ACGME review committee
2013 American Heart Association Scientific Sessions travel award
2013 Ninth Annual Respiratory Disease Young Investigators Forum Finalist
2014 American Thoracic Society International Conference Abstract Scholarship
2016 Reza Ebrahimi Research Scholar Award, University of Illinois at Chicago
2017 New Attending of the Year, IM Residency Awards, University of Illinois at Chicago
2017 Certificate of Excellence, IM Residency Awards, University of Illinois at Chicago
2017 Attending of the Year, IM Residency Awards, University of Illinois at Chicago
2018 Central Society for Clinical and Translational Research K-Award Grant
2018 Attending of the Year, Student Run Free Clinic, University of Illinois at Chicago
2018 New Attending of the Year, IM Residency Awards, University of Illinois at Chicago
2018 – Member, Institutional Review Board, University of Illinois at Chicago, Chicago, IL.
2019 Central Society for Clinical and Translational Research K-Award Grant
2019 Attending of the Year, IM Residency Awards, University of Illinois at Chicago
2019 New Attending of the Year, IM Residency Awards, University of Illinois at Chicago
2020 Attending of the Year, IM Residency Awards, University of Illinois at Chicago

Professional Memberships

2013 – American Thoracic Society
2013 – American Heart Association
2016 – 2017 New York Academy of Sciences

Involvement in Professional Societies and Scientific Publications

- 2012 – 2014 Scientific writing and consulting committee member, Pulmonary Circulation Journal
- 2013 – 2016 Web Director, Executive Committee, Assembly on Pulmonary Circulation, ATS
- 2014 – 2019 Web Editorial Committee, American Thoracic Society
- 2014 – 2019 Early Career Investigators Committee, Pulmonary Circulation Assembly Liaison, ATS
- 2015 American Thoracic Society Representative to the American Medical Association
- 2016 – 2017 Illinois Representative on the Council of Chapter Representatives, Hill Day, ATS
- 2016 Researcher Spotlight, Pulmonary Vascular Research Institute Newsletter, Feb 2016
- 2018 – Mentoring Committee Organizer, Pulmonary Circulation Assembly, ATS

Course Lecturer

- 2014 Lecturer, Drug Treatment of Asthma. *Medical Pharmacology Series* (Medical and graduate students). Department of Pharmacology, University of Illinois at Chicago, Chicago, IL.
- 2017 – Respiratory Exam Workshop, *Doctoring and Clinical Skills Series* (Medical students). Department of Medicine, University of Illinois at Chicago, Chicago, IL.
- 2017 – Morbidity and Mortality Lecture Series (Internal Medicine Residency). Department of Medicine, University of Illinois at Chicago, Chicago, IL.
- 2018 – Lung Physiology Course, *Phase 1 Curriculum* (Medical students). Department of Medicine, University of Illinois at Chicago, Chicago, IL.

Reviewer for Scientific Publications

- 2013 – Microvascular Research
- 2013 – Pulmonary Circulation Journal
- 2013 – Annals of the American Thoracic Society
- 2014 – American Journal of Physiology – Cell Physiology
- 2015 – Current Therapeutic Research
- 2017 – American Journal of Respiratory and Critical Care Medicine
- 2017 – Journal of Critical Care
- 2019 – BMC Pulmonary Medicine

Invited Lectures

1. 3rd International South China Pulmonary Vascular Disease Diagnosis and Treatment Symposium, Guangzhou, China October 14, 2017.
2. Evaluating the Post-Pulmonary Embolism Patient: What You Need to Know. Texas Academy of Family Physicians Family Medicine Symposium. San Antonio, TX, June 8th, 2018.
3. Evaluating the Post-Pulmonary Embolism Patient: What You Need to Know. Georgia Academy of Family Physicians Annual Scientific Assembly. Atlanta, GA, November 8th, 2018.
4. Examining Treatment Options in Chronic Thromboembolic Pulmonary Hypertension. Assemblia 2019 Specialty Pharmacy Summit. Las Vegas, NV, May 2nd, 2019.
5. Pulmonary Arterial Hypertension: Building the Knowledge Base for Improved Long-term Outcomes. Texas Academy of Family Physicians Annual Session. Houston, TX, November 8th, 2019.

Extramural Sponsorship

1. **K08 HL133474** Fraidenburg (PI) 09/01/2016 – 07/31/2021
NIH/NHLBI

Role of NFATc3 in Altered Hypoxic Pulmonary Vasoconstriction during Acute Lung Injury

Lung inflammation and hypoxemia are major risk factors for mortality in acute respiratory distress syndrome (ARDS). Adequate blood oxygenation is dependent on effective matching of ventilation

and perfusion in the lung microenvironment and, as an evolutionary mechanism, hypoxic pulmonary vasoconstriction is aimed at maintaining sufficient blood supply to the most effectively ventilated areas of the lung. The purpose of this proposal is to determine the mechanisms by which NFATc3 leads to impaired HPV during acute lung inflammation and injury.

Role: PI

Clinical Trial Involvement

1. **D.R. Fraidenburg** (Site PI). Pulmonary Arterial Hypertension (PAH) Quality Enhancement Research Initiative (QuERI) Extension Program. Vallerie V. McLaughlin, MD (PI), Actelion Pharmaceuticals (Sponsor). Status: Completed, publication pending.
2. **D.R. Fraidenburg** (Site PI), C. Gans (Co-I). A Multicenter, Randomized, Double-Blinded, Placebo-Controlled Trial to Evaluate the Safety and Efficacy of Inhaled Treprostinil in Subjects with Pulmonary Hypertension due to Parenchymal Lung Disease. United Therapeutics (Sponsor). Budget: \$50,540. Status: Completed.
3. **D.R. Fraidenburg** (Site PI), C. Gans (Co-I). An Open-Label Extension study of Inhaled Treprostinil in Subjects with Pulmonary Hypertension due to Parenchymal Lung Disease. United Therapeutics (Sponsor) Budget: \$29,900. Status: Completed.
4. **D.R. Fraidenburg** (Site PI), C. Gans (Co-I), N. Sweiss (Co-I). A Study of the Efficacy and Safety of Bardoxolone Methyl in Patients with Connective Tissue Disease-Associated Pulmonary Arterial Hypertension. Reata (Sponsor). Budget: \$89,000. Status: Completed.
5. **D.R. Fraidenburg** (Site PI). An Extended Access Program to Assess Long-term Safety of Bardoxolone Methyl in Patients with Pulmonary Hypertension (RANGER). Reata (Sponsor). Budget: \$26,974. Status: Completed.
6. **D.R. Fraidenburg** (Site PI), P.G. Belvitch (Co-I), K.P Haas (Co-I). A Protocol Comparing Temporary Transvenous Diaphragm Pacing to Standard of Care for Weaning from Mechanical Ventilation in ICU Patients (RESCUE 3). Lungpacer Medical (Sponsor). Budget: \$46,125 annually. Status: Open to recruitment.
7. **D.R. Fraidenburg** (Site PI), M. Joo (Co-I). Phase 3, Randomized, Placebo-controlled, Double-blind, Adaptive Study to Evaluate the Safety and Efficacy of Inhaled Treprostinil in Patients with Pulmonary Hypertension due to Chronic Obstructive Pulmonary Disease (PH-COPD). United Therapeutics (Sponsor) Budget: \$131,959. Status: Open to recruitment.

Publications

A. Books

1. Smith, K.A., **D.R. Fraidenburg**, and J.X.-J. Yuan (Eds). Targeted therapies: endothelin receptor antagonists (Chapter 5). In: “*Advances in the Management of Pulmonary Arterial Hypertension*” (Future Medicine 2013, eBook) Future Science Group (FSG); London, U.K.; 2013.
2. **D.R. Fraidenburg** and J.X.-J. Yuan (Eds). *Vascular Diseases of the Lung. PanVascular Medicine*. P. Lanzer (Ed.), Springer; Berlin, Germany; 2015.

B. Peer-reviewed Original Research Articles

1. Ogawa, A., A.L. Firth, S. Ariyasu, I. Yamadori, H. Matsubara, S. Song, **D.R. Fraidenburg**, and J.X.-J. Yuan. Thrombin-mediated activation of Akt signaling contributes to pulmonary vascular remodeling in pulmonary hypertension. *Physiol Rep*. Dec 29; 1(7), 2013.
2. Zimnicka, A.M., H. Tang, Q. Guo, F.K. Kuhr, M.J. Oh, J. Wan, J. Chen, K.A. Smith, **D.R. Fraidenburg**, M.S. Choudhury, I. Levitan, R.F. Machado, J.H. Kaplan, and J.X.-J. Yuan. Upregulated copper transporters in hypoxia-induced pulmonary hypertension. *PLoS One*. Mar; 9(3):e90544, 2014.
3. Tang, H., J. Chen, **D.R. Fraidenburg**, S. Song, J.R. Sysol, A.R. Drennan, S. Offermanns, R.D. Ye, M.G. Bonini, R.D. Minshall, J.G.N. Garcia, R.F. Machado, A. Makino, and J.X.-J. Yuan. Deficiency

of Akt1, but not Akt2, attenuates the development of pulmonary hypertension. *Am J Physiol Lung Cell Mol Physiol.* Jan 15; 308(2):L208-20, 2015.

4. Smith, K.A., G. Voiriot, H. Tang, **D.R. Fraidenburg**, S. Song, H. Yamamura, Q. Guo, J. Wan, N.M. Pohl, M. Tauseef, R. Bodmer, K. Ocorr, P.A. Thistlethwaite, G.G. Haddad, F.L. Powell, A. Makino, D. Mehta, and J.X.-J. Yuan. Notch activation of Ca²⁺ signaling mediates hypoxic pulmonary vasoconstriction and pulmonary hypertension. *Am J Respir Cell Mol Biol.* Sep; 53(3):355-67, 2015.
5. Tang, H., A. Yamamura, H. Yamamura, S. Song, **D.R. Fraidenburg**, J. Chen, Y. Gu, N. Pohl, T. Zhou, L. Perez, R. Ayon, A. Desai, D. Goltzman, F. Rischard, Z. Khalpey, S. Black, J.G.N. Garcia, A. Makino, and J.X.-J. Yuan. Pathogenic role of calcium-sensing receptors in the development and progression of pulmonary hypertension. *Am J Physiol Lung Cell Mol Physiol.* May 1; 310 (9): 846-59, 2016.
6. Zhou, T., H. Tang, Y. Han, **D.R. Fraidenburg**, Y. Kim, D. Lee, J. Choi, H. Bang, and J-H. Ko. Expression profile of mitochondrial voltage-dependent anion channel-1 (VDAC1) influenced genes is associated with pulmonary hypertension. *Korean J Physiol Pharmacol.* May; 21(3): 353-360, 2017.
7. Ren X., F. Zhang, M. Zhao, Z. Zhao, S. Sun, **D.R. Fraidenburg**, H. Tang, and Y. Han. Angiotensin-(1-7) in paraventricular nucleus contributes to the enhanced cardiac sympathetic afferent reflex and sympathetic activity in chronic heart failure rats. *Cell Physiol Biochem.* Aug 23; 42(6):2523-2539, 2017.
8. Mucksavage, J.J., K.J. He, J. Chang, M. Panlilio-Villanueva, **D.R. Fraidenburg**, S.T. Benken. A pilot study of end-tidal carbon dioxide in prediction of in-hospital cardiac arrests. *Crit Care Explor.* 2020 Sep 25; 2(10): e0204.
9. Vagts, C., C. Ascoli, **D.R. Fraidenburg**, R.P. Baughman, Y. Huang, R. Edafetanure-Ibeh, S. Ahmed, B. Levin, Y. Lu, D.L. Perkins, P.W. Finn, and N.J. Sweiss. Unsupervised clustering reveals sarcoidosis phenotypes marked by a reduction in lymphocytes relate to increased inflammatory activity on 18FDG-PET/CT. *Front Med (Lausanne).* 2021 Feb 24; 8: 595077.
10. **Fraidenburg, D.R.**, G. Voiriot, N.M. Pohl, K.A. Smith, R.F. Machado, S.M. Dudek, and J.X.-J. Yuan. Lung inflammation activates nuclear factor of activated T-cells which results in downregulated TRPC expression and impaired hypoxic pulmonary vasoconstriction. (Submitted).

C. Review Articles

1. **Fraidenburg, D.R.** and J.X.-J. Yuan. Current and future therapeutic targets for pulmonary arterial hypertension. *High Alt. Med. Biol.* Jun; 14(2):134-43, 2013.
2. **Fraidenburg, D.R.** and R.F. Machado. Pulmonary hypertension in thalassemia syndromes. *Ann NY Acad Sci.* 2016 Mar; 1368(1):127-39.
3. Wenzler E., **D.R. Fraidenburg**, T. Scardina, and L.H. Danziger. Aerosolized antibiotics: a review of the literature and rationale for use. *Clin Microbiol Rev.* 2016 Jul; 29(3):581-632.
4. **Fraidenburg, D.R.** and R.F. Machado. A review of transcriptome analysis in pulmonary vascular diseases. *Methods Mol Biol.* 2018; 1783:259-277.

D. Editorials

1. Johnson, M.T., T.T. Yamanaka, **D.R. Fraidenburg**, and S.P. Kane. Benzodiazepine misadventure in acute alcohol withdrawal: the transition from delirium tremens to ICU delirium. *J. Anesth.* Feb; 27(1): 135-136, 2013.
2. **Fraidenburg, D.R.** and J.X.-J. Yuan. Hungry for more – Autophagy in the pathogenesis of PAH. *Circ Res.* Apr 12; 112(8): 1091-1093, 2013.
3. Smith, K.A., **D.R. Fraidenburg**, and J.X.-J. Yuan. Current therapies for the treatment of pulmonary arterial hypertension. In: “*Pulmonary Arterial Hypertension*” (Future Medicine 2013, eBook) edited by Smith K.A., Fraidenburg D.R., and Yuan J.X.-J, Future Science Group (FSG); London, U.K.; August 2013. (Forward)

4. Guo, Q., J.A. Huang, and **D.R. Fraidenburg**. Bosentan as rescue treatment in refractory hypoxemia and pulmonary hypertension in a patient with ARDS and H7N9 influenza virus infection. *Lung*. Oct; 192(5):635-6, 2014.
5. Guo, Q., J.A. Huang, D. Zhao, J. Jun, L. Shenlang, **D.R. Fraidenburg**. Pathologic changes in a patient with acute respiratory distress syndrome and H7N9 influenza infection. *Critical Care*. Dec 5; 18:666, 2014.
6. Guo, Q., D. Zhao, L. Shenlang, C. Youguo, J. Jun, **D.R. Fraidenburg**, and J.A. Huang. Delivery of Fetus Death with Misoprostol in a Pregnant Woman with H7N9 Avian Influenza A Virus Pneumonia and ARDS. *Critical Care*. Oct 28; 18 (5):589, 2014.
7. Wang, J., J.A. Huang, D. Zhao, J. Jun, L. Shenlang, **D.R. Fraidenburg**, and Q. Guo. Ramsay hunt syndrome in a patient with H7N9 influenza virus infection. *Chin Med J (Engl)*. 2015; 128 (3):417-8.
8. Allison, D., S. Campbell-Lee, J. Crane, V. Vidanovic, S. Webb, **D.R. Fraidenburg**, and F. Hussain. Red blood cell exchange to avoid intubating a COVID-19 positive patient with sickle cell disease? *J Clin Apher*. 2020 Aug; 35(4): 378-381.

E. Book Chapters

1. Smith, K.A., **D.R. Fraidenburg**, and J.X.-J. Yuan. Targeted therapies: endothelin receptor antagonists (Chapter 5). In: “*Pulmonary Arterial Hypertension*” (Future Medicine 2013, eBook) edited by Smith K.A., **Fraidenburg D.R.**, and Yuan J.X.-J., Future Science Group (FSG); London, U.K.; August 2013.
2. Rizzo, A.R., **D.R. Fraidenburg**, and J.X.-J. Yuan. Pulmonary vascular anatomy. In: “*PanVascular Medicine*,” edited by P. Lanzer, Springer; Berlin, Germany; 2015. (Book Chapter)
3. Rizzo, A.R., **D.R. Fraidenburg**, and J.X.-J. Yuan. Pulmonary vascular physiology and pathophysiology. In: “*PanVascular Medicine*,” edited by P. Lanzer, Springer; Berlin, Germany; 2015. (Book Chapter)
4. **Fraidenburg, D.R.** and J.X.-J. Yuan. Pathogenic mechanisms of pulmonary arterial hypertension. In: “*PanVascular Medicine*,” edited by P. Lanzer, Springer; Berlin, Germany; 2015. (Book Chapter)
5. **Fraidenburg, D.R.**, J.X.-J. Yuan, and S.P. Gaine. Diagnosis and treatment of pulmonary arterial hypertension. In: “*PanVascular Medicine*,” edited by P. Lanzer, Springer; Berlin, Germany; 2015. (Book Chapter)
6. **Fraidenburg, D.R.**, A.A. Desai, and J.X.-J. Yuan. Treatment of pulmonary arterial hypertension. In: “*Goodman and Gilman’s The Pharmacological Basis of Therapeutics, Thirteenth Edition*” edited by L. Brunton, McGraw-Hill; New York, NY; 2017. (Book Chapter)
7. **Fraidenburg, D.R.** and J.X.-J. Yuan. Pulmonary hypertension. In: “*Encyclopedia of Cardiovascular Research and Medicine*,” edited by V. Ramachandran and D. Sawyer, Elsevier, Amsterdam; 2017. (Book Chapter)
8. Damodaran, A., **D.R. Fraidenburg**, and I. Rubinstein. Inhalational therapies in non-CF bronchiectasis. In: “*Inhalation Aerosols, Physical and Biological Basis for Therapy*,” edited by Mansour, H.M. and A.J. Hickey, CRC Press; Boca Raton, FL; 2018. (Book Chapter)
9. **Fraidenburg, D.R.**, A.A. Desai, A. Makino, and J.X.-J. Yuan. Treatment of pulmonary arterial hypertension. In: “*Goodman and Gilman’s The Pharmacological Basis of Therapeutics, Fourteenth Edition*” edited by L. Brunton, McGraw-Hill; New York, NY; 2021. (Book Chapter)

F. Abstracts

1. **Fraidenburg, D.R.**, G. Voiriot, N.M. Pohl, K.A. Smith, and J.X.-J. Yuan. Lung inflammation impairs hypoxic pulmonary vasoconstriction through activation of nuclear factor of activated T-cells. American Heart Association Regional Conference; Chicago, IL; Sep, 2013.
2. **Fraidenburg, D.R.** Lung inflammation impairs hypoxic pulmonary vasoconstriction through activation of nuclear factor of activated T-cells. Ninth Annual Respiratory Diseases Young Investigators Forum; Austin, TX; Oct, 2013.

3. **Fraidenburg, D.R.**, G. Voirirot, N.M. Pohl, K.A. Smith, and J.X.-J. Yuan. Lung inflammation impairs hypoxic pulmonary vasoconstriction through activation of nuclear factor of activated T-cells. American Heart Association Scientific Sessions; Dallas, TX; Nov 2013.
4. Tang, H.Y., J. Chen, A. Drennan, **D.R. Fraidenburg**, A.M. Zimmnicka, K.A. Smith, J.G.N. Garcia, R.F. Machado, A. Makino, and J.X.-J. Yuan. Distinct roles of Akt isoforms in the development of hypoxia-induced pulmonary hypertension. American Heart Association Scientific Sessions; Dallas, TX; Nov 2013.
5. **Fraidenburg, D.R.**, N.H. Ahmed, C.M. Kapp, P. Majumder, and J.R. Jacobson. A modified checklist to improve standard care orders in the medical intensive care unit. American Thoracic Society International Conference; San Diego, CA; May 2014.
6. **Fraidenburg, D.R.**, G. Voirirot, N.M. Pohl, K.A. Smith, and J.X.-J. Yuan. Lung inflammation activates nuclear factor of activated T-cells which results in downregulated TRPC expression and impaired hypoxic pulmonary vasoconstriction. American Thoracic Society International Conference; San Diego, CA; May 2014.
7. Tang, H.Y., J. Chen, A. Drennan, **D.R. Fraidenburg**, S. Song, J.R. Sysol, K.A. Smith, R.F. Machado, A. Makino, and J.X.-J. Yuan. Akt/mTOR signaling contributes to the development on pulmonary arterial hypertension. American Thoracic Society International Conference; San Diego, CA; May 2014.
8. **Fraidenburg, D.R.**, H. Tang, A. Drennan, and J.X.-J. Yuan. A novel formulation of vasoactive intestinal peptide attenuates acute hypoxic vasoconstriction and protects against pulmonary hypertension. American Heart Association Scientific Sessions; Chicago, IL; Nov 2014.
9. Tang, H.Y., J. Chen, **D.R. Fraidenburg**, Y. Gu, J.G.N. Garcia, A. Makino, and J.X.-J. Yuan. Raptor and Rictor both contribute to the development and progression of pulmonary arterial hypertension. *Experimental Biology. FASEB J* April 2015 29:662.17.
10. **Fraidenburg, D.R.**, H. Tang, J. Chen, A. Drennan, R.F. Machado and J.X.-J. Yuan. A novel formulation of vasoactive intestinal peptide attenuates acute hypoxic vasoconstriction and protects against pulmonary hypertension. American Thoracic Society International Conference; Denver, CO; May 2015.
11. **Fraidenburg, D.R.**, J. Slivnick, J.M. Loeb, J.R. Jacobson. Barriers to the adherence of standard care orders in the medical intensive care unit. American Thoracic Society International Conference; Denver, CO; May 2015.
12. Kapp, C.M., J.M. Loeb, R. Cooper, J. Chae, L. Estep, A.K. Ardati, T.T. Yamanaka, and **D.R. Fraidenburg**. Elevating the quality of cardiopulmonary resuscitation using biometric analysis of chest compressions. American Thoracic Society International Conference; San Francisco, CA; May 2016.
13. Loeb, J.M., and **D.R. Fraidenburg**. Are we missing a fungus among us? American Thoracic Society International Conference; San Francisco, CA; May 2016.
14. Buchcic, B., T.T. Yamanaka, **D.R. Fraidenburg**, and I. Rubinstein. Should patients aged 85 years and older be treated for nontuberculous mycobacterial lung disease? American Thoracic Society International Conference; San Francisco, CA; May 2016.
15. **Fraidenburg, D.R.**, J.X.-J. Yuan, R.F. Machado, and S.M. Dudek. Impaired hypoxic pulmonary vasoconstriction after acute lung injury is mediated through nuclear factor of activated T-cells in pulmonary artery smooth muscle cells. American Thoracic Society International Conference; San Francisco, CA; May 2016.
16. Rao, B., C.M. Kapp, J.M. Loeb, J. Birchak, M. Nehmer, T.T. Yamanaka, A.K. Ardati, and **D.R. Fraidenburg**. Using biometric analysis to identify patient factors affecting the quality of cardiopulmonary resuscitation. American Heart Association Scientific Sessions; New Orleans, LA; Nov 2016.
17. Tole, M., **D.R. Fraidenburg**, and I. Rubinstein. COPD in patients 90 years of age and older residing in inner-city Chicago: Preliminary observations. American Thoracic Society International Conference; Washington DC; May 2017.

18. Iusim, S. and **D.R. Fraidenburg**. Why your Chihuahua may not be your best friend. American Thoracic Society International Conference; Washington DC; May 2017.
19. Dodia, N. and **D.R. Fraidenburg**. Putting the urine antigen test on blast. American Thoracic Society International Conference; Washington DC; May 2017.
20. Lal, K., H. Nixon, M. DellaTorre, **D.R. Fraidenburg**, and J. Briller. A double whammy: management of a mechanical prosthesis and severe pulmonary hypertension during pregnancy. The 5th International Conference on Cardiac Problems in Pregnancy; Bologna, Italy; Feb 2018.
21. Birchak, J., O. Abdul-Kafi, T. Pham, M. Viner, M. Nehmer, B.R. Rao, A.K. Ardati, and **D.R. Fraidenburg**. Prolonged pauses in cardiopulmonary resuscitation are associated with poor survival during in-hospital cardiac arrest. American College of Cardiology Scientific Session; Orlando, FL; March 2018.
22. Iusim, S. and **D.R. Fraidenburg**. Oh rats! Weil's disease and fulminant hepatic failure complicated by cerebral candidiasis. American Thoracic Society International Conference; San Diego, CA; May 2018.
23. Vergis, A., H.K. Bhatt, R.H. Anguiano, and **D.R. Fraidenburg**. Blinded by science, progressive visual impairment in a patient with retinitis pigmentosa and pulmonary arterial hypertension treated with tadalafil. American Thoracic Society International Conference; San Diego, CA; May 2018.
24. Martinez, B. and **D.R. Fraidenburg**. Obstructive pulmonary hypertension caused fibrosing mediastinitis successfully treated with riociguat. American Thoracic Society International Conference; San Diego, CA; May 2018.
25. Pham, T., J. Birchak, O. Abdul-Kafi, M. Viner, M. Nehmer, B.R. Rao, A.K. Ardati, and **D.R. Fraidenburg**. CPR quality and patient characteristics both contribute to poor survival during in-hospital cardiac arrest. American Thoracic Society International Conference; San Diego, CA; May 2018.
26. Usmani, A., R.H. Anguiano, A. Vergis, S. Iusim, R.F. Machado, and **D.R. Fraidenburg**. Ethnic and socioeconomic health disparities are associated with severity of illness in pulmonary arterial hypertension. American Thoracic Society International Conference; San Diego, CA; May 2018.
27. **Fraidenburg, D.R.**, R.L. Demeritte, and S.M. Dudek. MicroRNA 101 targets canonical transient receptor potential (TRPC) channels and contributes to impaired hypoxic vasoconstriction during acute lung injury. American Heart Association Scientific Sessions; Chicago, IL; Nov 2018.
28. Anis, M., Y. Epshtein, J.R. Jacobson, and **D.R. Fraidenburg**. Non-muscle myosin light chain kinase activity mediates hyper-proliferation and anti-apoptosis in human pulmonary artery endothelial cells leading to pulmonary arterial hypertension. American Heart Association Scientific Sessions; Chicago, IL; Nov 2018.
29. **Fraidenburg, D.R.**, K. Batai, T. Abbasi, J.G.N. Garcia, M.Gladwin, V. Gordeuk, R. Kittles, R.F. Machado. Myosin light chain kinase genetic variation and the risk of precapillary pulmonary hypertension in sickle cell disease. Central Society for Clinical and Translational Science; Chicago, IL; April 2019.
30. Huang, S.P., **D.R. Fraidenburg**, and R.H. Anguiano. Characterizing the accessibility and burdens of medications in the treatment of pulmonary arterial hypertension. American Thoracic Society International Conference; Dallas, TX; May 2019.
31. Lal, K., A. Usmani, R.H. Anguiano, A. Vergis, R.F. Machado, and **D.R. Fraidenburg**. Discordance of echocardiography findings with disease severity in African Americans with pulmonary arterial hypertension. American Thoracic Society International Conference; Dallas, TX; May 2019.
32. Anis, M., J.R. Jacobson, **D.R. Fraidenburg**. Non-muscle myosin light chain kinase activity mediates endothelial cell proliferation and inhibits apoptosis in pulmonary arterial hypertension. American Thoracic Society International Conference; Dallas, TX; May 2019.
33. **Fraidenburg, D.R.**, K. Batai, T. Abbasi, J.G.N. Garcia, M.Gladwin, V. Gordeuk, R. Kittles, R.F. Machado. Myosin light chain kinase genetic variation and the risk of precapillary pulmonary hypertension in sickle cell disease. American Thoracic Society International Conference; Dallas, TX; May 2019.

34. **Fraidenburg, D.R.**, M. Anis, R. Halstrom, N. Baig, S.M. Dudek, and J.R. Jacobson. Non-muscle myosin light chain kinase activation increases endothelial cell proliferation and identifies a role for cytoskeletal regulation in pulmonary arterial hypertension. Aspen Lung Conference; Aspen, CO; June 2019.
35. Krow, S., A. Mathew, and **D.R. Fraidenburg**. Pulmonary hypertension due to fibrosing mediastinitis: a spectrum of clinical presentations. CHEST Annual Meeting; New Orleans, LA; Oct 2019; CHEST, Volume 156, Issue 4, A544 - A545.
36. Yaqoob, M., C. Brillante, J.R. Jacobson, and **D.R. Fraidenburg**. Put on your thinking CAPS: pulmonary hypertension in antiphospholipid syndrome. CHEST Annual Meeting; New Orleans, LA; Oct 2019; CHEST, Volume 156, Issue 4, A1201.
37. **D.R. Fraidenburg**. Hemin induced endothelial dysfunction and endothelial to mesenchymal transition contributes to the pathogenesis of pulmonary hypertension due to chronic hemolysis. Pulmonary Vascular Research Institute Annual World Congress; Lima, Peru; January 2020.
38. Krow, S, V. Prieto-Centurion, and **D.R. Fraidenburg**. Investigating barriers to the timely diagnosis of pulmonary arterial hypertension. American Thoracic Society International Conference; Philadelphia, PA; May 2020.
39. Holbert, K., J. Gonzales, K. Czysz, and **D.R. Fraidenburg**. Hemin induced endothelial dysfunction and endothelial to mesenchymal transition contributes to the pathogenesis of pulmonary hypertension due to chronic hemolysis. American Thoracic Society International Conference; Philadelphia, PA; May 2020.
40. Anis, M., G. Marsboom, R. Halstrom, N. Baig, J.R. Jacobson, and **D.R. Fraidenburg**. Non-muscle myosin light chain kinase activity mediates cellular proliferation and migration in BMP2 deficient in vivo and in vitro models. American Thoracic Society International Conference; Philadelphia, PA; May 2020.
41. Gonzales, J., P. Cooper, S. Sanyal, M. Kaul, C. Vagts, and **D.R. Fraidenburg**. The company you keep: a case of refractory hypoxemic respiratory failure, thyroid storm, and systolic heart failure in the post-partum period. CHEST Annual Meeting; Virtual conference; Oct 2020.
42. Taylor, J., A. Kudinov, E. Hinz, **D.R. Fraidenburg**, and J. Briller. Pulmonary hypertension management during pregnancy termination in a patient with repaired congenital heart disease and a mechanical mitral valve. American College of Cardiology Scientific Session and Expo. Virtual conference; May 2021.
43. Baig, N., R. Halstrom, M. Anis, and **D.R. Fraidenburg**. MLCK activation has distinct effects on proliferation between pulmonary artery smooth muscle and endothelial cells as well as under hypoxic versus normoxic conditions. American Thoracic Society International Conference; Virtual conference; May 2021.

G. Invited Articles

1. **Fraidenburg, D.R.** and J.X.-J. Yuan. General information about pulmonary hypertension. *American Thoracic Society Pulmonary Hypertension Week Series*. Nov 2013.
2. Collins, K., **D.R. Fraidenburg**, and J.X.-J. Yuan. Role of extracellular calcium sensing receptor in pulmonary arterial hypertension. *Pulmonary Hypertension Association Pathlight Research Corner*. 2014.
3. **Fraidenburg, D.R.** and J.X.-J. Yuan. Macitentan and riociguat in the treatment of pulmonary arterial hypertension. *China Medical Tribune*. Feb, 2014.

Predocctoral Trainees

Name	Status	Degree	Degree year	Training timeline	Medical School	Title of Project	Current Position	Presentations	Awards
Slivnick, Jeremy	Past	BS	2011	2014-2015	University of Illinois at Chicago	Barriers to adherence of standard care orders in the medical intensive care unit	Cardiology Fellow (Ohio State University)	ATS International Conference 2015	
Rao, Birju	Past	BS	2012	2015 - 2016	University of Illinois at Chicago	Using Biometric Analysis to Identify Patient Factors Affecting the Quality of Cardiopulmonary Resuscitation	Internal Medicine Resident (Emory University)	AHA Scientific Sessions 2016	
Baig, Noman	Current	BS	2017	2018 – present	University of Illinois at Chicago	Role of the Cytoskeleton in Pulmonary Artery Smooth Muscle Cells during Development and Progression of Pulmonary Arterial Hypertension	Medical Student (University of Illinois at Chicago)	UIC Research Day (local), ATS International Conference 2021	AHA Student Scholarship
Holbert, Kelsey	Past	BS	2016	2017 - 2020	University of Illinois at Chicago	Role of NFATc3 in Impaired Hypoxic Vasoconstriction	Medical Student (University of Illinois at Chicago)	UIC Research Day (local), ATS International Conference 2020	
Halstrom, Rachel	Current	BS	2017	2018 – present	University of Illinois at Chicago	MLCK Activation Contributes to Pulmonary Artery Endothelial Cell Dysfunction in the Development and Progression of Pulmonary Arterial Hypertension	Medical Student (University of Illinois at Chicago)	UIC Research Day (local), ATS International Conference 2021	Craig Fellowship
George, Joseph	Current	BS	2018	2019 – present	University of Illinois at Chicago	Hemin Induces Endothelial-Mesenchymal Transition Contributing to Pulmonary Hypertension in Sickle Cell Disease	Medical Student (University of Illinois at Chicago)	UIC Research Day (local)	

Postdoctoral Trainees

Name	Status	Training timeline	Trainee Level	Degree	Degree year	Title of Project	Current Position	Presentations	Awards
Kapp, Chris	Past	2013 - 2015	Resident	MD	2012	A modified checklist to improve standard care orders in the medical intensive care unit	Pulmonary Fellow, Johns Hopkins University	ATS International Conference 2014, 2015	
Loeb, Jennifer	Past	2015 - 2017	Resident	MD	2013	Using Biometric Analysis to Identify Patient Factors Affecting the Quality of Cardiopulmonary Resuscitation	Pulmonary Fellow, University of Southern California	ATS International Conference 2015, 2016	
Usmani, Asharul	Past	2016 - 2018	Fellow	MD	2011	Ethnic and socioeconomic health disparities are associated with severity of illness in pulmonary arterial hypertension	Clinician, Stockbridge, GA	ATS International Conference 2018	
Anis, Mariam	Current	2017 - present	Fellow	MBBS	2013	Role of the Cytoskeleton in Pulmonary Artery Smooth Muscle Cells during Development and Progression of Pulmonary Arterial Hypertension	Pulmonary, Critical Care Fellow (UIC)	AHA Scientific Sessions 2018; ATS International Conference 2018, 2019	2019 CSCTR Trainee Travel Award
Lal, Kumar	Current	2018 - present	Resident	MD	2017	Understanding and addressing health disparities in pulmonary arterial hypertension	Internal Medicine Resident (UIC)	ATS International Conference 2019	
Krow, Solomon	Current	2018 - present	Fellow	MD	2013	Understanding and addressing health disparities in pulmonary arterial hypertension	Pulmonary, Critical Care Fellow (UIC)	CHEST conference 2019, ATS International Conference 2020	2020 Minority Trainee Development Scholarship
Gonzales, Janae	Current	2019 - present	Resident	MD	2018	The role of microRNA 101 in impaired hypoxic vasoconstriction during acute lung injury	Internal Medicine Resident (UIC)	ATS International Conference 2020, CHEST Scientific Sessions 2020	