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**Department of Pediatrics  
University of Cincinnati College of Medicine  
Curriculum Vita**

**Name and Personal Data:**

Erik B. Hysinger, MD MSCE

Office Address: 3333 Burnet Ave  
Location S 9th Floor  
Division of Pulmonary Medicine  
Cincinnati Children's Hospital Medical Center  
Cincinnati OH, 45229

Phone: 513-803-3674

Fax: 513-636-4615

Email: Erik.Hysinger@cchmc.org

**Education:**

08/2002-05/2006	B.S. Vanderbilt University ( <i>magna cum laude</i> )
08/2006-05/2010	M.D. Vanderbilt University
08/2014-08/2016	M.S. University of Pennsylvania
08/2017-05/2018	Cincinnati Children's Core Leadership Program

**Academic Appointment:**

07/2010-06/2011	Intern in Pediatrics, Vanderbilt Children's Hospital, Nashville
07/2011-06/2013	Resident in Pediatrics, Vanderbilt Children's Hospital, Nashville
07/2013-06/2016	Fellowship, Pediatric Pulmonology, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania
08/2016-12/2021	Assistant Professor, Pediatric Pulmonology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH
12/2021-present	Associate Professor, Pediatric Pulmonology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

**Licensing and certification:**

12/2013-present	American Board of Pediatrics
07/2014-present	Children Research
08/2016-present	Ohio State Medical Board
01/2017-present	Pregnant Women/Fetuses/Neonates

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01/2017-present	Academic and Regional Health Centers Core Curriculum
01/2017-present	Human Subjects Research Core Curriculum
02/2017-present	Responsible Conduct of Research
02/2017-present	Good Clinical Practice
09/2017-present	CITI Curriculum for Animal Care and Use
09/2017-present	Lab Core Curriculum
09/2017-present	Occupation Health and Safety Awareness Training
09/2017-present	Reducing Pain and Distress in Laboratory Mice and Rats
09/2017-present	Working with Non-Human Primates in Research Settings
12/2019-present	American Board of Pediatric Pulmonary Medicine

### **Awards and Honors:**

2010	Vanderbilt University Pediatric Epidemiology Research Award
2014	Sprague Research Fellow
2015	ATS Fellows Track Symposium
2016	Young Investigators Research Forum
2018	Ohio Top Pediatric Pulmonologist
2018	ATS Pediatric Scientific Abstract Award
2018	Cincinnati Top Doc
2023	Cincinnati Top Doc
2024	Clinical Team Award

### **Clinical Service**

#### Clinical Expertise and Activities:

My clinical focus is in children with bronchopulmonary dysplasia, aerodigestive disorders, bronchology, and chronic respiratory failure. I evaluate children in both the inpatient and outpatient setting. I perform 6-8 weeks of inpatient clinical service. In the outpatient setting, I conduct approximately 100 clinics and perform more than 450 bronchoscopies every year as part of the largest and oldest aerodigestive group in the world. Over the past eight years, I have partnered with neonatology, radiology, and cardiology to develop the Cincinnati Bronchopulmonary Dysplasia (BPD) Center, serving as the pulmonary co-director. The primary goal of the center is to provide personalized, multi-disciplinary care for neonates with BPD from birth through adolescence and improve cardiopulmonary outcomes. As part of the program, we are developing standardized algorithms for screening for pulmonary hypertension and weaning supplemental oxygen in the ambulatory setting. Through this program we have reduce mortality by 50%, the need for tracheostomy by 30%, and decreased hospital readmissions by more than 50%. The inpatient program has attracted referrals from across the United States, and the outpatient program is the largest and most comprehensive in the country, currently systematically following over 450 children with BPD throughout childhood and growing by approximately 180 patients per year.

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In addition to my clinical expertise in diagnostic flexible bronchoscopy, I am trained in advanced diagnostic and interventional bronchoscopy including cryotherapy, endobronchial ultrasound, transbronchial biopsy, transbronchial needle aspirates, and endobronchial valve placement. Through these expertise, I have continued to push Cincinnati Children's Hospital Medical Center to be the world leader in pediatric bronchology by establishing the most comprehensive pediatric interventional pulmonology program in the country. As part of advancing this field, I have led seminars on endoscopic cryotherapy and interventional pulmonology in pediatrics at international conferences across the world. Most recently, I co-founded the Pediatric Chapter in the American Academy of Bronchology and Interventional Pulmonology.

Quality Improvement:

- 2014 Croup Clinical Pathway, Children's Hospital of Philadelphia
- 2014-2016 Unit Partners, Children's Hospital of Philadelphia, Fellow Representative
- 2017 Flexible Bronchoscopy Template, Cincinnati Children's Hospital Medical Center
- 2018 Home Oxygen Therapy Weaning Protocol, Cincinnati Children's Hospital Medical Center
- 2024 BPD Collaborative

**Research and Scholarly Activities:**

My research currently focuses on the disease phenotyping and longitudinal respiratory outcomes in children with bronchopulmonary dysplasia and aerodigestive disorders and outcomes of advance diagnostic and interventional bronchoscopy procedures.

Grants and Contracts

Ongoing Research Support:

**National Heart, Lung, and Blood Institute R01 HL 173164**

**Title:** Calculating the Components of Work of Breathing in Neonates with BPD

**Dates of Study:** 04/2024-03/2029

**Principal Investigator:** Alister Bates, PhD

**Role:** Co-investigator

**Grant Support:** \$3,940,274, 5% effort

**National Heart, Lung, and Blood Institute R01 HL 164420**

**Title:** Trajectories of Regional Cardiopulmonary Structure and Function in a Longitudinal Cohort of Extremely Preterm Infants

**Dates of Study:** 05/2023-04/2028

**Principal Investigator:** Erik Hysinger MD, Jason Woods PhD, and Nehal Parikh DO

**Role:** Contact Principal Investigator

**Grant Support:** \$ 3,889,122, 20% effort

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**National Heart, Lung, and Blood Institute R01 HL 1446689**

**Title:** MRI Phenotyping of Early BPD and Prediction of Outcomes

**Dates of Study:** 04/2018-03/2025

**Principal Investigator:** Jason Woods, PhD

**Role:** Co-investigator

**Grant Support:** \$3,900,945, 5% effort

Completed Research Support:

**Vanderbilt University Pediatric Epidemiology Research Grant**

**Title:** Outcomes in Adolescent Suicide

**Dates of Study:** 06/2010-08/2010

**Role:** Principal investigator

**Grant Support:** \$5,000

**Vanderbilt Institution for Clinical and Translational Research #VR6914**

**Title:** Metabolic Profiles in Pulmonary Arterial Hypertension

**Dates of Study:** 01/2013-06/2013

**Role:** Principal investigator

**Grant Support:** \$5,000

**National Institute of Health Training Grant in Cardiology and Pulmonary Clinical Research #HL-007891**

**Title:** Outcomes in Neonates with Bronchopulmonary Dysplasia and Tracheobronchomalacia

**Dates of Study:** 07/2014-07/2016

**Role:** Principal investigator

**Grant Support:** \$108,432

**Research Innovation Pilot Grant**

**Title:** Quantitative MRI Assessment of Dynamic Trachea Collapse: Validation, Energy Expenditure, and Outcomes

**Dates of Study:** 01/2018- 01/2019

**Role:** Principal investigator

**Grant Support:** \$75,000

**ARC Grant**

**Title:** CCHMC as a National Leader in BPD

**Dates of Study:** 01/2018-12/2020

**Role:** Co-Principal Investigator

**Grant Support:** \$1,997,947, 10% effort

**Radiology Clinical Research Pilot Funding**

**Title:** C-arm Cone Beam CT and Augment Fluoroscopy Guided Transbronchial Biopsy:

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#### Safety and Feasibility

**Dates of Study:** 09/2020-09/2021

**Principal Investigator:** John Racadio, Erik Hysinger, and Christopher Towe

**Role:** Co-Principal Investigator

**Grant Support:** \$8,720.50 direct cost

#### Research Innovation Pilot Grant

**Title:** Tracheal Distensibility, Diameter, and Bronchodilator Response

**Dates of Study:** 05/2022- 05/2023

**Role:** Principal investigator

**Grant Support:** \$75,000

#### GAP Funding

**Title:** Trajectories of Regional Cardiopulmonary Structure and Function in a Longitudinal Cohort of Extremely Preterm Infants

**Dates of Study:** 09/2022-09/2023

**Role:** Co-Principal Investigator

**Grand Support:** \$75,000

#### Patient Centered Outcomes Research Institute

**Title:** Monitoring Oxygen Levels of Premature Babies at Home and in the Clinic – The RHO Trial

**Dates of Study:** 09/2020-07/2024

**Principal Investigator:** Larry Rhein

**Role:** Site Principal Investigator

**Grant Support:** \$1,262,793, 5% effort

#### Trustee Award

**Title:** Calculating the Work of Breathing in Neonates with Bronchopulmonary Dysplasia

**Dates of Study:** 07/2022-06/2024

**Role:** Co-Investigator

**Grant Support:** \$100k/year, 1%

#### Publications

##### Original Research:

1. Jiang X, Klimovich V, Arunkumar AI, **Hysinger E**, Wang Y, Ott RD, Guler GD, Weiner B, Chazin WJ, Fanning E. Structural Mechanism of RPA loading on DNA during activation of a simple pre-replication complex. *EMBO J.* 2006. 25(23): 5516-26. doi: 10.1038/sj.emboj.7601432. Epub 2006 Nov 16. PMID: 17110927.
2. **Hysinger E**, Callahan T, Caples L, Fuchs C, Shelton R, Cooper W. Suicidal Behavior Differs Among Early and Late Adolescents Treated with Antidepressant Agents. *Pediatrics.* 2011. 128(3): 447-454. doi: 10.1542/peds.2010-3262. Epub 2011 Aug 8. PMID: 21824883.

3. **Hysinger E**, Manthia R, and Flemming A. Enterovirus Meningitis with Marked Pleocytosis. *Hospital Pediatrics*. 2012. 2(3): 173-175. doi: 10.1542/hpeds.2012-0008. PMID: 24319922.
4. **Hysinger E**, Roizen J, Mentch F, Vazquez L, Connolly J, Bradfield J, Almoguera B, Sleiman P, Allen J, Levine M, and Hakonarson H. Mendelian Randomization Analysis Demonstrates that Low Vitamin D Is Unlikely Causative of Pediatric Asthma. *J. Allergy Clin Immunol*. 2016. 136 (6): 1747-1749. doi: 10.1016/j.jaci.2016.06.056. Epub 2016 Aug 20. PMID: 27554823.
5. Almoguera B, Vazquez L, Mentch F, Connolly J, Pacheco J, Sundaresan A, Peissig P, Linneman J, McCarty C, Crosslin D, Carrell D, Lingren T, Namjou-Khales B, Harley J, Larson E, Jarvik G, Brilliant M, Williams M, Kullo I, **Hysinger E**, Sleiman P, Hakonarson H. Identification of four novel loci in asthma in European and African American. *Am J Respir Crit Care Med*. 2017. 195(4): 456-463. doi: 10.1164/rccm.201604-0861OC. PMID: 27611488.
6. **Hysinger E**, Friedman N, Shinohara R, Padula M, Zhang H, Panitch H, and Kawut S. Increased Morbidity in Neonates with Bronchopulmonary Dysplasia and Tracheobronchomalacia. *Ann Amer Thorac Soc*. 2017. 14(9): 1428-1435. doi: 10.1513/AnnalsATS.201702-178OC. Epub 2017 Jun 16. PMID: 28622012.
7. Egnatchik RA, Brittain EL, Shah AT, Fares WH, Ford HJ, Monahan K, Kang CJ, Kocurek EG, Zhu S, Luong T, Nguyen TT, **Hysinger E**, Austin ED, Skala MC, Young JD, Roberts LJ, Hemnes AR, West J, Fessel JP. Dysfunctional BMP2 Signaling Drives and Abnormal Endothelial requirement for Glutamine in Pulmonary Arterial Hypertension. *Pulm Circ*. 2017. 7(1): 186-199. doi: 10.1086/690236. eCollection 2017 Mar. PMID: 28680578.
8. Fierro J, **Hysinger E**, Piccione J, Panitch H, Blinman T, Laje P, Kirpalani H, Zhang H, and Munson D. Balloon Airway Occlusion to Elucidate the Clinical Impact of Pulmonary Lobar Hyperinflation. *Pediatr Allergy Immunol Pulmonol*. 2018. 31(3): 186-190.
9. Sood N, Connolly J, Mentch F, Vazquez L, **Hysinger E**, eMERGE Outcomes WorkGroup, and Hakonarson H. Leveraging Electronic Health Records to Assess the Role of ADRB2 SNPs in Predicting Exacerbation Frequency in Asthma Patients. *Pharmacogenet Genomics*. 2018. 28(11): 256-259. doi: 10.1097/FPC.0000000000000355. PMID: 3033491.
10. Friedman N, McDonough J, Zhang X, **Hysinger E**, Adams K, and Allen J. Bronchodilator Responsiveness Assessed by Forced Oscillometry and Multiple Breath Washout Techniques in Preschool Children. *Pediatr Investig*. 2018. 2(2): 83-89 doi: 10.1002/ped4.12034. eCollection 2018 Jun. PMID: 32851238.
11. **Lagatta J**, **Hysinger E**, Zaniletti I, Wymore E, Vyas-Read S, Nelin L, Truog W, Padula M, Porta N, Yallapragada S, Savani R, Grover T, Engle W, DiGeronimo B, Murthy K. The Impact of Pulmonary Hypertension in Preterm Infants with Severe BPD Through One Year. *J. Pediatrics*. 2018. 203: 218-224. doi: 10.1016/j.jpeds.2018.07.035. Epub 2018 Aug 29. PMID: 30172426.
12. **Hysinger E**, Friedman N, Jensen E, Zhang H, and Piccione J. Bronchoscopy in Neonates with Severe Bronchopulmonary Dysplasia in the NICU. *J. Perinat*. 2019. 39(2): 263-268. doi: 10.1038/s41372-018-0280-y. Epub 2018 Dec 5. PMID: 3051879.

13. Bates A, Higano N, **Hysinger E**, Fleck R, Hahn A, Fain S, Kingma P, and Woods J. Quantitative Assessment of Regional Dynamic Airway Collapse in Neonates via Retrospectively Respiratory-gated <sup>1</sup>H Ultrashort Echo-time (UTE) MRI. *J Magn Reson Imaging*. 2019. 49(3): 659-667. doi: 10.1002/jmri.26296. Epub 2018 Sep 25. PMID: 30252988.
14. Yoder L, Higano N, Schapiro A, Fleck R., **Hysinger E**, Bates A, Kingma P, Merhar S, Fain S, and Woods J. Elevated Lung Volumes in Neonates with Bronchopulmonary Dysplasia Measured by Free-breathing MRI. *Pediatric Pulmonology*. 2019. 54 (8): 1311-1318. doi: 10.1002/ppul.24378. Epub 2019 May 27. PMID: 31134768.
15. Kuranga A, **Hysinger E**, Stamper D, and Benzaquen S. Implantable Endobronchial Valves in Pediatric Patients with Persistent Leak. *Clinical Case Reports*. 2019. 7 (12): 2410-2413. doi: 10.1002/ccr3.2490. eCollection 2019 Dec. PMID: 31893070.
16. Bouso J, Yendur O, **Hysinger E**, Planet P, Haas A, Goldfarb G, and Piccione J. EBUS Guided Biopsy is Feasible, Safe, and Improves Diagnostic Yields in Immunocompromised Children. *Am J Resp Crit Care Med*. 2020. 201(3): 384-386. doi: 10.1164/rccm.201907-1372LE. PMID: 31626557.
17. Vyas-Read S, Wymore E, Zaniletti I, Murthy K, Padula M, Truog W, Savani R, Yallapragada S, Logan J, Zhang H, **Hysinger E**, Grover T, Natarajan G, Nelin L, Porta N, Potoka K, DiGeronimo R, and Lagatta J. Utility of Echocardiography in Predicting Mortality in Infants with Severe Bronchopulmonary Dysplasia. *J Perinat*. 2020. 40 (1): 149-156. doi: 10.1038/s41372-019-0508-5. Epub 2019 Sep 30. PMID: 31570799.
18. **Hysinger E**, Bates A, Higano N, Benscoter D, Fleck R, Hart C, Burg G, De Alarcon A, Kingma P, and Woods J. Ultrashort Echo-time MRI for the Assessment of Tracheomalacia in Neonates. *Chest*. 2020. 157 (3): 596-602. doi: 10.1016/j.chest.2019.11.034. Epub 2019 Dec 17. PMID: 31862439.
19. Polverino F, **Hysinger E**, Gupta N, Olin Tod, Abman S, and Woods J. Imaging the Underlying Pathologies of Long-term BPD and Early COPD. *Am J Med*. 2020. 133 (60): 757-760. doi: 10.1016/j.amjmed.2019.12.009. Epub 2020 Jan 16. PMID: 31954683.
20. **Hysinger E**, Hart C, Burg G, De Alarcon A, and Benscoter D. Differences in Flexible and Rigid Bronchoscopy for Assessment of Tracheomalacia. *Laryngoscope*. 2021. 131(1): 201-204. doi: 10.1002/lary.28656. Epub 2020 Apr 13. PMID: 32282085.
21. Gouwens K, Higano N, Marks K, Stimpfi JN, **Hysinger E**, Woods J, Kingma P. MRI Evaluation of Regional Lung Tidal Volumes in Severe Neonatal Bronchopulmonary Dysplasia. *Am J Respir Crit Care Med*. 2020. 202(7): 1024-1031. doi: 10.1164/rccm.202001-0213OC. PMID: 32459506.
22. Guanatilaka CC, Higano NS, **Hysinger E**, Gandhi D, Fleck R, Hahn A, Fain S, Woods J, and Bates A. Increased Work of Breathing Due to Tracheomalacia in Neonates. *Ann Amer Thorac Soc*. 2020. 17(10): 1247-1256. doi: 10.1513/AnnalsATS.202002-162OC. PMID: 32579852.
23. Brewington J, Benscoter D, Torres-Silva C, McHendry C, Lim F, Cortezzo D, and **Hysinger E**. Flexible Bronchoscopic. Cyroextraction in a Neonate on Extra-Corporeal Membrane Oxygenation. *Am J Respir Crit Care Med*. 2020. 203(5): 633-

635. doi: 10.1164/rccm.202007-2817LE. PMID: 33095995.
24. Yang MM, Higano NS, Gunatilaka C, Hyingsger EB, Amin RS, Woods JC, Bates AJ. The Position of Subglottic Stenosis Affects Neonatal Work of Breathing. *Laryngoscope*. 2021. 131(4): 1220-1226. doi: 10.1002/lary.29169. PMID: 33280109.
25. Ghandi D, Rice A, Gunatilak C, Higano N, Fleck R, de Alarcon A, Hart C, Kuo I, Woods J, **Hysinger E**, and Bates A. Quantitative Evaluation of Subglottic Stenosis Using Ultrashort Echo-time MIR in a Rabbit Model. *Laryngoscope*. 2021. 131(6): 1971-1979. doi: 10.1002/lary.29363. PMID: 33399240.
26. Burg G, Hossain M, Wood R, and **Hysinger E**. Evaluation of Agreement on the Presence and Severity of Tracheobronchomalacia by Dynamic Flexible Bronchoscopy. *Ann Amer Thorac Soc*. 2021. 18(10): 1749-1752. doi: 10.1513/AnnalsATS.202009-1142RL. Online ahead of print. PMID: 34000226.
27. Gunatilaka C, **Hysinger E**, Schuh A, Gandhi D, Higano N, Xiao Q, Hahn A, Fain S, Fleck R, Woods J, and Bates A. Neonates with Tracheomalacia Generate Auto-PEEP via Glottis Closure. *Chest*. 2021. 160(6): 2168-2177. doi: 10.1016/j.chest.2021.06.021. PMID: 34157310.
28. Pajor N, Kaiser M, Brinker M, Mullen L, Schuler C, Hart C, Britto M, Torres-Silva C, **Hysinger E**, Amin R, and Bescoter D. Improving Home Ventilator Alarm Use Among Children Requiring Chronic Mechanical Ventilation. *Pediatrics*. 2022 149 (6): e2021051968.. doi: 10.1542/peds.2021-051968. PMID: 35641471
29. Adaikalam S, Higano N, **Hysinger E**, Bates A, Fleck R, Schapiro A, House M, Nathan A, Ahfeld S, Brady J, Woods J, and Kingma P. Tracheostomy Prediction Mode in Neonatal Bronchopulmonary Dysplasia via Lung and Airway MRI. *Pediatr Pulmonol*. 2022. 57 (4): 1042-1050. doi: 10.1002/ppul.25826. PMID: 35029053.
30. Willmering M, Walkup L, Niedbalski P, Wang H, Wang Z, **Hysinger E**, Myers K, Towe C, Driehuys B, Cleveland Z, and Woods J. Pediatric 129Xe Gas-Transfer MR-Feasibility and Applicability. *J Magn Reson Imaging*. 2022. 56 (4): 1207-1219. DOI: 10.1002/jmri.28136. PMID: 35244302.
31. Higano N, Gandhi D, Xiao Qiwei, Gunatilaka C, **Hysinger E**, Fleck R, Wood J, and Bates A. Virtual Bronchoscopy of Neonatal Airway Malacia Via High-Resolution, Respiratory-gated MRI. *Am J Respir Crit Care Med*. 2022. 206 (5): e42-e43. doi: 10.1007/s00247-021-05250-1. PMID: 35122130
32. Polverino F, Washko G, Covar R, **Hysinger E**, Hackett T, Bhatt T, Brusselle G, and Dharmage S. The Low Flyers: Persistent Airflow Limitation in Youngs Adults. *Lancet Resp Med*. 2022. 10 (9):819-822. doi: 10.1016/S2213-2600(22)00250-8. PMID: 35850124.
33. House M, Klein S, Parham D, **Hysinger E**, and Brady J. Frequent Hypoxemia Found in Infants with Bronchopulmonary Dysplasia After Weaning Home Oxygen. *Pediatr Pulmonol*. 2022. 57 (11): 2638-2645. doi: 10.1002/ppul.26076. PMID: 35832023.
34. Kao D, Buck L, **Hysinger E**, Bates A, Gunatilaka C, and Rutter M. Laryngotracheal Separation Through the Cricoid Ring for Management of Tracheobronchomegaly. *Int J Pediatr Otorinolaryngol*. 2022. 161: 111266. doi: 10.1016/j.ijporl.2022.111266. PMID: 35964494.



35. Gunatilaka C, **Hysinger E**, Schuh A, Xiao Q, Gandhi D, Higano N, Ignatiuk D, Hossain M, Fleck R, Wood J, and Bates A. Predicting Tracheal Work of Breathing in Neonates Based on Radiological and Pulmonary Measurements. *J Appl Physiol*. 2022. 133 (4): 893-901. doi: 10.1152/japplphysiol.00399.2022. PMID: 36049059.
36. Franklin S, Fierro J, **Hysinger E**, Phinizy P, and Piccione J. Hemosiderin Laden Macrophages in BAL Samples of Children with Bronchopulmonary Dysplasia. *J Pediatr*. 2023. 253: 79-85. doi: 10.1016/j.jpeds.2022.09.019. PMID: 36130636.
37. **Hysinger E** and Woods J. Seeing Premature Lung Disease: Hyperpolarized Xe MRI. *Am J Resp Crit Care Med*. 2023. 207 (1): 15-16. doi: 10.1164/rccm.202208-1612ED. PMID: 36067056.
38. Dani A, Hayes D Jr, Guzman-Gomez A, Hossain MM, Woods JC, Morales DLS, Zafar F, **Hysinger EB**. Lung Transplantation for Bronchopulmonary Dysplasia. *Chest*. 2023. 163 (5): 1166-1175. doi: 10.1016/j.chest.2022.12.032. PMID: 36610665.
39. Willmering MM, Bdalwi As, Kaspky KR, Racadio J, Machogu EM, Kwan OA, Cheng PC, Woods, JC, and **Hysinger EB**. MRI Assessment and Guidance for Regionally Targeted Pulmonary Interventions. *Pediatr Pulmonol*. 2023. 58 (8): 2386-2388. doi: 10.1002/ppul.26482. Online ahead of print.
40. Krasaelap A, Duncan D, Sabe R, Bhardwaj V, Lerner D, Gold B, Boesch R, Faure C, von Allmen D, Williams D, Chiou, DeBoer E, **Hysinger E**, Maybee J, Khlevner J, Larson k, Morris K, Jalali L, McSweeney M, Brigger M, Greifer M, Rutter M, Williams N, Subramanyan R, Ryan M, Acra S, Pentiuk S, Friedlander J, Sobol S, Kaul A, Dorfman L, Darbari A, Prager J, Rosen R, Cocjin J, and Mousa H. Pediatric Aerodigestive Medicine: Advancing Collaborative Care for Children with Oropharyngeal Dysphagia. *J Pediatr Gastroenterol*. 2023. 77 (4): 460-467. doi: 10.1097/MPG.0000000000003882. PMID: 37438891.
41. **Hysinger E** and Critser P. How is Preterm Birth Working Out: Cardiopulmonary Response to Exercise in Extreme Prematurity. *Euro Resp J*. 2023. 62 (5): 2301787. doi: 10.1183/13993003.01787-2023. PMID: 37973173.
42. Kaspky K, Wallace C, Hilvert N, Machogu E, Cheng P, Kwan O, von Allmen D, Racadio J, and **Hysinger E**. A Novel Technique for Balloon Dilation in Pediatric Bronchial Stenosis. *Pediatr Pulmonol*. 2024. 59 (1): 225-228. doi: 10.1002/ppul.26715. PMID: 37787387
43. Miller A, **Hysinger E**, Tabangin M, Torres-Silva c, De Alarcon A, and Hart C. Pulmonary and Clinical Outcomes Following DROOL Procedure for Refractory Sialorrhea. *JAMA Otolaryngol Head Neck Surg*. 2024. 150 (1): 57-64. doi: 10.1001/jamaoto.2023.3670. PMID: 38008865.
44. Gunatilaka C, McKenzie C, **Hysinger E.**, Xiao Q, Higano N, Woods J, and Bates A. Tracheomalacia Reduces Aerosolized Drug Delivery to the Lung. *J Aerosol Med Pulm Drug Deliv*. 2024. 37(1):19-29. doi:10.1089/jamp.2023.0023. PMID: 38064481
45. Corcoran A, Franklin S, **Hysinger E**, Goldfarb S, Phinizy P, Pogoriler J, Tran S, DiBardino D, Haas A, and Piccione J. Diagnostic Yield of Endobronchial Ultrasound and Virtual CT Navigational Bronchoscopy for Biopsy of Pulmonary Nodules, Mediastinal Lymph Nodes and Thoracic Tumors in Children. *Pediatr Pulmonol*. 2024. 59 (2): 371-378. doi: 10.1002/ppul.26756. PMID: 37975500

46. Corcoran A, Shore D, Boesch P, Chopra M, Das S, Dibardino D, Goldfarb S, Haas S, **Hysinger E**, Phinzy P, Vicencio A, Toth J, Piccione J. Practices and Perspectives on Advanced Diagnostic and Interventional Bronchoscopy among Pediatric Pulmonologist in the United States. *Pediatr Pulmonol*. 2024. Online Ahead of Print. doi: 10.1002/ppul.26977. PMID: 38558404.
47. Bjorkman K, Miles E, Bellew L, Schneider K, Magness S, Higano N, Oldberding N, Hoyos C, Hirsch R, **Hysinger E**, Woods J, and Critser C. Patent Ductus Arteriosus and Lung MRI Phenotype in Moderate and Severe Bronchopulmonary Dysplasia-Pulmonary Hypertension. *Am J Resp Crit Care Med*. Online Ahead of print. doi: 10.1164/rccm.202310-1733OC. PMID: 38568735.
48. Hasselfeld K, **Hysinger E**, and House M. Outcomes in Preterm Infants with Bronchopulmonary Dysplasia and Pulmonary Hypertension. *NeoReviews*. Accepted for publication.
49. Von Allmen D, **Hysinger E**, Bates A, Higano N, Garrison A, Walther A, De Alarcon A, Woods J, and Kingma P. Correlation of Tracheomalacia Severity with Esophageal Gap Length as Assessed by Ultrashort Echo-time MRI. *J Ped Surg*. Accepted for Publication.
50. Miller A, Hart C, Kao D, Bellew and **Hysinger E**. Factors Associated With Positive Respiratory Cultures Following Tracheostomy in Pediatric Patients. *Int J Ped Otol*. Accepted for Publication. doi: <https://doi.org/10.1016/j.ijporl.2024.112075>.
51. Bozkanat M, Wendroth R, Radchenko C, Burg G, **Hysinger E**. Transbronchial cryo-nodal biopsies in Children: A Case Series. *Pediatr Pulmonol* Accepted for publication.
52. Zak S, St Onge I, Higano N, Bates A, Gandhi D, Fleck R, Kingma P, Woods J, and **Hysinger E**. Clinical Outcomes through Two Years for Infants with BPD and Tracheomalacia. *Pediatr Pulmonol*. Accepted for Publication.

Books, chapters, reviews, and other Publications:

1. Hayden L, Boyer D, **Hysinger E**, Moore P, Faro A, Wilson K, and Thomson C, Flexible Airway Endoscopy in Children. *Ann Amer Thorac So*. 2015. 12(12). 1873-1875. doi: 10.1513/AnnalsATS.201509-612CME. PMID: 26653192.
2. **Hysinger E** and Pantich H. Paediatric Tracheomalacia. *Paediatr Resp Rev*. 2016. 17(9): 9-15. doi: 10.1016/j.prrv.2015.03.002. Epub 2015 Mar 17. PMID: 25962857.
3. **Hysinger E**. Laryngomalacia, Tracheomalacia, and Bronchomalacia. *Current Problems in Pediatric and Adolescent Health Care*. 2018. 48(4):113-118. doi: 10.1016/j.cppeds.2018.03.002. Epub 2018 Apr 3. PMID: 29622320.
4. Mandel E, **Hysinger E**, and McGrath-Morrow S. Disease Phenotyping of Infants with Severe Bronchopulmonary Dysplasia. *Am J Respir Crit Care Med*. 201(11): 1327-1329. doi: 10.1164/rccm.202002-0305ED. PMID: 32176520.
5. **Hysinger E**. Evaluation of Airway Dynamics. *Diagnostic and Interventional Bronchoscopy in Children 1<sup>st</sup> Edition*. 2020.
6. **Hysinger E**. Central Airway Issues in Bronchopulmonary Dysplasia. *Pediatr Pulmonol*. 2021. 56(11):3518-3526. doi: 10.1002/ppul.25417. PMID: 33835725.
7. Piccione J, **Hysinger E**, and Vicencio A. Pediatric Advanced Diagnostic and Interventional Bronchoscopy. *Seminars in Pediatric Surgery*. 2012. 30 (3): 151065.

- doi: 10.1016/j.sempedsurg.2021.151065. PMID: 34172210.
8. Clemmens C, **Hysinger E**, and Piccione J. Airway evaluation: Bronchoscopy, laryngoscopy, and tracheal aspirates. *Goldsmith's Assisted Ventilation of the Neonate 7<sup>th</sup> Edition*. 2021.
  9. Higano N, Bates A, Gunatilaka C, **Hysinger E**, Critser P, Hirsch R, Woods J, and Fleck R. Bronchopulmonary Dysplasia from Chest X-rays to MRI and CT: Adding Value. *Pediatr Radiol*. 2022. 52 (4): 643-660. doi: 10.1007/s00247-021-05250-1. PMID: 35122130.
  10. **Hysinger E**, Higano N, Critser P, and Woods J. Imaging in Neonatal Respiratory Disease. *Paediatr Resp Rev*. 2022. 43: 44-52. doi: 10.1007/s00247-021-05250-1 PMID: 35122130.
  11. **Hysinger E** and Ahlfeld S. Respiratory support strategies in the prevention and treatment of bronchopulmonary dysplasia. *Fron Pediatr*. 2023. 11:1087857. doi: 10.3389/fped.2023.1087857. PMID: 36937965.
  12. **Hysinger E** and Piccione J. Advanced Diagnostic and Therapeutic Bronchoscopy in Pediatrics. *Clinic Chest Med*. 2023 Accepted for Publication.
  13. **Hysinger E** and Zak S, Diagnostic Approach to Tracheomalacia and Medical Management. *Pediatric Aerodigestive Medicine*. Accepted for publication.
  14. **Hysinger E** and House M. Feeding, Swallowing, and Breathing in Infants and Children with BPD. *Pediatric Aerodigestive Medicine*. Accepted for publication.

Quality Review of Publications:

1. **Hysinger E** and Panitch H. Paediatric Tracheomalacia. *Paediatr Resp Rev*. 2016. 17(9): 9-15. doi: 10.1016/j.prrv.2015.03.002. Epub 2015 Mar 17. PMID: 25962857. Citations: 96. 2017=15, 2018=19, 2019=23, 2020=15, 2021=12
  - This is a comprehensive view of the development, physiology, diagnosis and treatment of tracheomalacia in children. I designed and drafted the manuscript.
2. **Hysinger E**, Friedman N, Jensen E, Zhang H, and Piccione J. Bronchoscopy in Neonates with Severe Bronchopulmonary Dysplasia in the NICU. *J. Perinat*. 2019. 39(2): 263-268. doi: 10.1038/s41372-018-0280-y. Epub 2018 Dec 5. PMID: 3051879. Citations: 20. 2017=NA, 2018=NA, 2019=4, 2020=8, 2021=8
  - This is the first study to define the findings of bronchoscopy ins neonates with severe bronchopulmonary dysplasia. We discovered that dynamic airway lesion like tracheobronchomalacia were present in more than half of neonates with severe bronchopulmonary dysplasia. I designed the study, collected, analyzed, interpreted the data, and drafted the manuscript.
3. **Hysinger E**, Friedman N, Shinohara R, Padula M, Zhang H, Panitch H, and Kawut S. Increased Morbidity in Neonates with Bronchopulmonary Dysplasia and Tracheobronchomalacia. *Ann Amer Thorac Soc*. 2017. 14(9): 1428-1435. doi: 10.1513/AnnalsATS.201702-178OC. Epub 2017 Jun 16. PMID: 28622012. Citations: 59. 2017=3, 2018=4, 2019=14, 2020=21, 2021=16
  - This is the first cohort study to evaluate the impact of tracheobronchomalacia on neonates with bronchopulmonary dysplasia. We found that tracheobronchomalacia is associated with longer more

- complicated hospitalizations and the need for increased respiratory and feeding support at hospital discharge I designed the study, collected, analyzed, interpreted the data, and drafted the manuscript.
4. **Lagatta J, Hysinger E, Zaniletti I, Wymore E, Vyas-Read S, Nelin L, Truog W, Padula M, Porta N, Yallapragada S, Savani R, Grover T, Engle W, DiGeronimo B, Murthy K.** The Impact of Pulmonary Hypertension in Preterm Infants with Severe BPD Through One Year. *J. Pediatrics*. 2018. 203: 218-224. doi: 10.1016/j.jpeds.2018.07.035. Epub 2018 Aug 29. PMID: 30172426. Citations: 41. 2017=NA, 2018=0, 2019=7, 2020=18, 2021=16
    - In this large, multi-site cohort study we identified increased morbidity and mortality for patients with bronchopulmonary dysplasia and pulmonary hypertension. I designed the study, collected, analyzed, interpreted the data, and edited the manuscript.
  5. **Hysinger E, Bates A, Higanon N, Benscotter D, Fleck R, Hart C, Burg G, De Alarcon A, Kingma P, and Woods J.** Ultrashort Echo-time MRI for the Assessment of Tracheomalacia in Neonates. *Chest*. 2020. 157 (3): 596-602. doi: 10.1016/j.chest.2019.11.034. Epub 2019 Dec 17. PMID: 31862439. Citations: 17. 2017=NA, 2018=NA, 2019=NA, 2020=7, 2021=10
    - This was validation study that demonstrates the ability of ultrashort echo-time MRI to identify the location and quantify the severity of tracheomalacia without sedation or ionizing radiation. I designed the study, collected, analyzed, interpreted the data, and drafted the manuscript.
  6. **Guanatilaka CC, Higanon NS, Hysinger E, Gandhi D, Fleck R, Hahn A, Fain S, Woods J, and Bates A.** Increased Work of Breathing Due to Tracheomalacia in Neonates. *Ann Amer Thorac Soc*. 2020. 17(10): 1247-1256. doi: 10.1513/AnnalsATS.202002-162OC. PMID: 32579852 Citations: 10. 2017=NA, 2018=NA, 2019=NA, 2020=3, 2021=7
    - This study used our previously validated ultrashort echo-time MRI to quantify the work of breathing related to tracheomalacia in neonates. I designed the study, interpreted the data, and edited the manuscript.
  7. **Gunatilaka C, Hysinger E, Schuh A, Gandhi D, Higanon N, Xiao Q, Hahn A, Fain S, Fleck R, Woods J, and Bates A.** Neonates with Tracheomalacia Generate Auto-PEEP via Glottis Closure. *Chest*. Online Ahead of Print doi: 10.1016/j.chest.2021.06.021. PMID: 34157310. Citations: 0. 2017=NA, 2018=NA, 2019=NA, 2020=NA, 2021=0
    - This study identified a previously unrecognized relationship between vocal cord motion and tracheomalacia in neonates. I designed the study, interpreted the data, and edited the manuscript.

#### Abstracts:

1. **Hysinger E, Callahan T, Caples L, Fuchs C, Shelton R, Cooper W.** Suicidal Behavior Differs Among Early and Late Adolescents Treated with Antidepressant Agents. Pediatric Academic Society: Vancouver, Canada, May 1-4, 2010. Poster Presentation.
2. **Hysinger E, Fessel J, Fox F, Cunningham G, Summar M, Loyd J, and Austin E.**

- Amino Acid and Urea Cycle Metabolism Is Altered in Patients with Pulmonary Arterial Hypertension. American Thoracic Society: Philadelphia, PA, May 17-22, 2013. Oral Presentation.
3. **Hysinger E, Roizen J**, Mentch F, Connoly J, Bradfield J, Almoguera B, Sleiman P, Allen J, Levine M, and Hakonarson H. A Cross-Sectional and Mendelian Randomization Analysis of Vitamin D Status and Asthma. Respiratory Disease Young Investigators Forum: Atlanta, GA, October 8-11, 2015. Oral Presentation.
  4. **Hysinger E**, Friedman N, Shinohara R, Padula M, Zhang H, Panitch H, and Kawut S. Increased Morbidity in Neonates with Bronchopulmonary Dysplasia and Tracheobronchomalacia. American Thoracic Society: San Francisco, CA, May 13-18, 2016. Poster Discussion.
  5. Zhang H, **Hysinger E**, and Piccione J. Tracheobronchomalacia May Contribute to Cardiopulmonary Instability in Infants with Severe Bronchopulmonary Dysplasia. Pediatric Academic Society San Francisco, CA, May 6-9, 2017. Poster.
  6. **Lagatta J, Hysinger E**, Zaniletti I, Wymore, E, Vyas-Read S, Nelin L, Truog W, Padula M, Porta N, Yallapragada S, Savani R, Grover T, Engle W, DiGeronimo B, Murthy K. The Impact of Pulmonary Hypertension in Preterm Infants with Severe BPD: A Multi-Center Comparison of NICU and Readmission Outcomes. Pediatric Academic Society: San Francisco, CA, May 6-9, 2017. Oral Presentation.
  7. **Hysinger E**, Zhang H, Piccione J. Flexible Bronchoscopy Is Safe and Changes Management in Neonates with Severe Bronchopulmonary Dysplasia in the NICU. American Thoracic Society: May 19-24, 2017. Poster.
  8. Burg G, Hossain M, Wood R, **Hysinger E**, Evaluation of Agreement on Presence and Severity of Tracheobronchomalacia in Pediatric Patients by Dynamic Flexible. American Thoracic Society: San Diego, CA, May 18-23, 2018. Poster.
  9. Yoder LM, Higano NS, Schapiro A, Fleck R, **Hysinger E**, Bates AJ, Fain S, Woods J. Elevated lung volumes in neonates with bronchopulmonary dysplasia measured via free-breathing pulmonary MRI. American Thoracic Society: San Diego, CA, May 18-23, 2018. Poster Discussion.
  10. Bates S, Higano NS, **Hysinger E**, Fleck RJ, Hahn A, Fain SB, Kingma P, Amin RS, Woods JC. Quantitative assessment of airway dynamics and abnormalities during restful breathing in infants using MRI. American Thoracic Society: San Diego, CA, May 18-23, 2018. Poster presentation.
  11. **Hysinger E, Bates A**, Higano N, Hart C, Bencoter D, De Alacron A, Fain S, Kingma P, Woods J. Quantitative Assessment of Tracheomalacia Using Ultra-Short Echo Time MRI. American Thoracic Society: San Diego, CA, May 18-23, 2018. Oral presentation. Best in Pediatrics.
  12. George A, **Hysinger E**, Torres-Silva C, Brewington J, Hart C, de Alacron A, Byrnes J, Goldstein B, Bencoter D. Etiologies and Outcomes of Pulmonary Hemorrhage in Children: A Single Institutional Series. American Thoracic Society: San Diego, CA, May 18-23, 2018. Poster presentation.
  13. Higano N, Bates A, **Hysinger E**, Fleck R, Hahn A, Fain S, Kingma P, Woods J. Quantitative geometric assessment of regional airway collapse in neonates via retrospectively respiratory-gated <sup>1</sup>H UTE MRI. Proceedings of the International Society of Magnetic Resonance in Medicine: Paris, France, Jun 2018. Oral presentation.

14. Bates A, Higano N, **Hysinger E**, Fleck R, Kingma P, Amin R, Woods J . Calculating Breathing Effort in Neonates with Tracheomalacia using Computational Fluid Dynamics with High-Resolution MRI. 8<sup>th</sup> World Congress in Biomechanics: Dublin, Ireland, July 8-12, 2018. Oral presentation.
15. Higano N, Bates A, Fleck R, Hahn A, Fain S, Kingma P, **Hysinger E**, Woods JC. Quantifying dynamic tracheal collapse in neonates with bronchopulmonary dysplasia using respiratory-gated MRI. Proceedings of the Radiological Society of North America: Chicago, IL, Nov 25-30, 2018. Oral presentation.
16. Higano N, Bates A, **Hysinger E**, St. Onge I, Fleck R, Kingma P, Woods J. Quantitative MRI assessment of dynamic tracheal collapse in neonates with bronchopulmonary dysplasia, with correlation to later tracheostomy requirement. The Sixth Annual Meeting of Contemporary Management of Aerodigestive Disease in Children: Nashville, TN, Dec 6-8, 2018. Oral Presentation.
17. Higano N, Bates A, **Hysinger E**, St Onge I, Fleck R, Kingma P, Woods J. Dynamic tracheal collapse and correlation to later tracheostomy in neonates with bronchopulmonary dysplasia via quantitative ultrashort echo-time MRI. American Thoracic Society: Dallas, TX May 15-20, 2019. Oral presentation.
18. Yang MM, Higano NS, Gunatilaka C, **Hysinger E**, Amin RS, Woods JC, Bates AJ. The Position of Subglottic Stenosis Affects Neonatal Work of Breathing. American Thoracic Society: Dallas, TX May 15-20, 2019. Poster Presentation.
19. St Onge I, Hart C, deAlarcon A, Miller C, Pentiuik S, Torres-Silva CA, **Hysinger E**, Benschoter DT. Nutritional Status in Pediatric Aerodigestive Referrals Compared to General Pulmonary Referrals. American Thoracic Society: Dallas, TX May 15-20, 2019. Poster presentation.
20. St Onge I, Higano NS, Bates AJ, Fleck RJ, Kingma PS, Woods JC, **Hysinger E**. Length of Stay and Readmission Frequency For Infants With Bronchopulmonary Dysplasia and Tracheomalacia. American Thoracic Society: Dallas, TX May 15-20, 2019. Poster presentation.
21. Higano N, Bates A, **Hysinger E**, Fleck R, Hahn A, Fain S, Kingma P, Woods J. Virtual Bronchoscopy of Neonatal Dynamic Airway Collapse with Ultrashort Echo-time MRI. International Society for Magnetic Resonance in Medicine. April 21, 2020. Oral Presentation.
22. Rice A, Bates A, Gandhi D, Gunatilaka C, Higano N, Kuo IC, De Alarcon A, Woods J, Amin R, **Hysinger E**, The Effect of Subglottic Stenosis and Balloon Dilation on Tracheal Dynamics and Shape. American Thoracic Society: Philadelphia, PA May 15-20, 2020. Poster Presentation.
23. Gandhi D, Bates A, Higano N, Gunatilaka C, Fleck R, De Alarcon A, Hart C, Kuo IC, Woods J, **Hysinger E**, Detecting Subglottic Stenosis with MRI and Correlating with Endotracheal Tube Sizing Measures. American Thoracic Society: Philadelphia, PA May 15-20, 2020. Poster Discussion.
24. **Hysinger E**, St. Onge I, Higano N, Fleck RJ, Kingma P, Woods, J. Neonatal Pulmonary Magnetic Resonance Imaging Predicts Respiratory Outcomes through Two Year of Life in Bronchopulmonary Dysplasia. Philadelphia, PA May 15-20, 2020. Oral Presentation.
25. Adaikalam S, Higano N, **Hysinger E**, Woods J, Kingma, P. Clinically-relevant Tracheostomy Prediction Model in Neonatal Bronchopulmonary Dysplasia Via Lung

- and Airway MRI. Philadelphia, PA May 15-20, 2020. Oral Presentation. Best in Pediatrics.
26. Gunatilaka C, Bates A, Higano, N, Hahn A, Fain S, **Hysinger E**, Fleck R, and Woods J. Work of Breathing in Neonates with and without Tracheomalacia Using Dynamic High-Resolution MRI Combined with Computational Fluid Dynamics. Miami, FL May 9-15, 2020. Oral Presentation.
  27. Lin NY, **Hysinger E**, and Simakajornboon N. Characterization of Sleep-Disordered Breathing in Children with Bronchopulmonary Dysplasia Referred to the Sleep Laboratory. Philadelphia, PA May 15-20, 2020. Oral Presentation.
  28. Higano N, Mukthapuram, S, **Hysinger E**, Fleck R, and Woods J. Hyperinflation is More Clinically Relevant Than Hyperdensity in Neonatal Lung Disease of Prematurity Via 3D MRI. Radiological Society of North America. Chicago, IL November 28-December 2, 2021. Oral Presentation. RSNA Trainee Research Prize Application.
  29. **Hysinger E**, Towe C, Racdio J, Wallace C, Hales J, Cummins A, Hilvert N, Sketch M, Doering C, and Kaul A. Functional Lumen Imaging: A Novel Assessment of Tracheomalacia. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Poster Presentation.
  30. Gunatilaka C, **Hysinger E**, Schuh A, Gandhi D, Higano N, Xiao Q, Fleck R, Woods J, and Bates A. MRI-Based Predictors of Work of Breathing in Neonates with Tracheomalacia. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Poster Discussion.
  31. Gunatilaka C, Higano N, **Hysinger E**, Schuh A, Xiao Q, Fleck R, Woods J, and Bates A. Dramatically Increased Tracheal Resistive Work of Breathing in a Neonatal Subject with Tracheomegaly. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Poster Presentation.
  32. Fletcher N, Higano N, Gunatilaka C, Critser P, **Hysinger E**, and Woods J. MRI-Determine Tidal Volumes, Minute Ventilation, and Cardiac Output in Neonatal Bronchopulmonary Dysplasia. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Poster Presentation.
  33. Mckenzie C, Gunatilaka C, Xiao Q, **Hysinger E**, and Bates A. Tracheomalacia in Neonates Reduces the Delivery of Nebulized Drugs to the Primary Bronchi. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Poster Presentation.
  34. Higano N, Mukthapuram S, **Hysinger E**, Fleck R, and Woods J. Obstructive Versus Restrictive Lung Disease in Neonatal Bronchopulmonary Dysplasia: Surrogate MRI Metrics Reveal Differences in Clinical Relevance. American Thoracic Society, May 13-18, 2022. San Francisco, CA. Oral Presentation
  35. Bjorkman KR, Miles KG, Bellew LE, Schneider KA, Magness SM, Hoyos Cordon X, Hirsch R, Higano NS, **Hysinger E**, Woods JC, Critser PJ. 2023. Hemodynamically significant ductus arteriosus are associated with pulmonary hypertension and lung hyperinflation in very preterm and extremely preterm infants with bronchopulmonary dysplasia. 16th International Conference Neonatal and Childhood Pulmonary Vascular Disease. Oral Presentation
  36. Bjorkman KR, Miles KG, Bellew LE, Schneider KA, Magness SM, Hoyos Cordon X, Hirsch R, Higano NS, **Hysinger E**, Woods JC, Critser PJ. 2023. Association of PDA

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- with Pulmonary Hypertension and Lung Hyperinflation by MRI in Infants with Bronchopulmonary Dysplasia. 8<sup>th</sup> World Congress of Pediatric Cardiology and Cardiac Surgery. Poster presentation.
37. Becker K, Bjorkman K, Hieu T, Schneider K, Bellew L, **Hysinger E**, Magness M, Critser P. Pulmonary Hypertension Is Associated with Morbidity, Mortality, and Prolonged Hospitalizations in Infants with Bronchopulmonary Dysplasia. American Heart Association. November 11-3, Philadelphia, PA.
  38. Matheson M, Bdaiwi A, Willmering M, **Hysinger E**, McCormack F, Walkup L, Cleveland Z, and Woods J. Disease Classification of <sup>129</sup>Xe Ventilation MRI using Artificial Intelligence. International Society for Magnetic Resonance in Medicine Annual Meeting. May 4-9, 2024. Singapore.
  39. Willmering M, **Hysinger E**, Janjindamai C, Soderlund S, Hussain R, Plummer J, Bdaiwi A, Critser P, Parikh N, Amin R, and Woods J. Hyperpolarized Xe MRI to Evaluate Lung Function in Patients with History of BPD. International Society for Magnetic Resonance in Medicine Annual Meeting. May 4-9, 2024. Singapore.
  40. Willmering M, **Hysinger E**, Janjindamai C, Soderlund S, Hussain R, Plummer J, Bdaiwi A, Critser P, Parikh N, Amin R, and Woods J. Assessment of Obstructive and Restrictive Lung Disease Via MRI in Bronchopulmonary Dysplasia Patients. American Thoracic Society. May 16-21, San Diego California. Oral Presentation.
  41. Bozkanat K, **Hysinger E**, Rutter M, and Von Allmen D. Unilateral Endoscopic Lung Volume Reduction in a Pediatric Patient Via Endobronchial Valve Placement. American Thoracic Society. May 16-21, San Diego California. Poster Discussion.
  42. Paisley A, **Hysinger B**, and Burg G. Necrotizing Pneumonia: The Road to Recovery in Two Severe Pediatric Cases. American Thoracic Society. May 16-21, San Diego California. Poster Discussion.

## Teaching and Mentoring:

### Teaching

#### Invited Presentations:

1. **Hysinger E.**, Friedman N., Shinohara R., Padula M., Zhang H., Panitch H., and Kawut S. Increased Morbidity in Neonates with Bronchopulmonary Dysplasia and Tracheobronchomalacia. Children's Hospital Neonatal Consortium. Sept. 28-30, 2016.
2. **Hysinger E.** Untangling Airway, Lung, Maturation and GI Disease in the Premature Infant. American Thoracic Society, May 19-24, 2017. San Diego, CA.
3. **Hysinger E**, Wood R, Torres-Silva, C, and Benscoter, D. Into the Airway: Pediatric Flexible Bronchoscopy. Cincinnati Children's Hospital Medical Center Grand Rounds. August 8, 2017. Cincinnati, OH.
4. **Hysinger E.** It's Not Asthma: Diagnosis and Management of Focal Wheezing. American Academy of Pediatrics, September 15-19, 2017. Chicago, IL.
5. **Hysinger E.** Dysphagia and Aspiration: The Lung as a Digestive Organ. Pediatric Dysphagia Series, October 5-6, 2018. Cincinnati, OH.
6. **Hysinger E.** The Pulmonologist and the Active Larynx. American Society of Pediatric Otolaryngology, May 3-5, 2019. San Antonio, TX



7. **Hysinger E.** Aerodigestive Year in Review. American Thoracic Society, May 15-20, 2019. Dallas, TX.
8. **Hysinger E.** Diagnosis and Management of Airway Complications of sBPD. American Thoracic Society, May 15-20, 2019. Dallas, TX.
9. **Hysinger E.** Advanced Diagnostic Bronchoscopy. Pediatric Flexible Bronchoscopy 2019 A Postgraduate Course. September 10-13, 2019. Cincinnati, OH
10. **Hysinger E.** Outpatient Management and Long-term Respiratory Outcomes in BPD. Guangzhou International Infant Chronic Lung Disease Forum. November 15-17, 2019. Guangzhou, China.
11. **Hysinger E.** Airway Complications and Utility of Flexible Bronchoscopy in BPD Management. Guangzhou International Infant Chronic Lung Disease Forum. November 15-17, 2019. Guangzhou, China.
12. **Hysinger E.** Airway Complications and Management in BPD. Cincinnati BPD Symposium 2020: Advances in Diagnosis and Management. January 13, 2020. Cincinnati, OH.
13. **Hysinger E.** Endoscopic Evaluation and Clinical Outcomes of Tracheomalacia in Infants. IX Curso Internacional de Enfermedades Respiratorias Pediatricas de la Universidad Catolica de Chile. November 19-21, 2020. Virtual Meeting.
14. **Hysinger E.** Cryotherapy in Pediatric Flexible Bronchoscopy. The Aerodigestive Society. S December 4-5, 2020. Virtual Meeting.
15. **Hysinger E.** Chronic Pulmonary Aspiration: The Lung as a Digestive Organ. The University of Massachusetts' Department of Pediatrics Grand Rounds. May 14, 2021. Virtual Meeting.
16. **Hysinger E.** and Hart C. Evaluation and Management of Aspiration in CHARGE Syndrome. International CHARGE Syndrome Conference. July 16-18, 2021. Virtual Meeting.
17. **Hysinger E.** Seeing Airway Dynamics: Development, Diagnosis, Outcomes, and Treatment of Tracheomalacia. Mt Sinai Pulmonary Grand Rounds. September 23, 2021.
18. **Hysinger E.** Non-surgical Management of Tracheomalacia. Aerodigestive Society Combined 2021 Meeting. November 4-5, 2021. Virtual Meeting
19. **Hysinger E.** Novel Techniques in Pulmonology, North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition. December 12-18, 2021. Virtual Meeting.
20. **Hysinger E.** Assment and Impact of Abnormal Lower Airway Dynamics. American Thoracic Society, May 13-18, 2022. San Francisco, CA.
21. **Hysinger E.** Endoscopic Intubation. American Thoracic Society, May 13-18, 2022. San Francisco, CA.
22. **Hysinger E.** The Pediatrician Perspective. Tackling Airflow Limitation from the First Years of Life to Early Adulthood: Are we still behind?. American Thoracic Society, May 13-18, 2022. San Francisco, CA.
23. **Hysinger E.** IP Procedures in Pediatric Patients. American Academy of Interventional Pulmonology, August 11-13, 2022. Nashville, TN.
24. **Kingma P and Hysinger E.** Premature Infants: Bronchopulmonary Dysplasia. Medically Complex Fall 2022 Annual Training Conference. August 26-27, 2022. Lexington, KY.
25. **Hysinger E.** Development of a Pediatric Lung Nodule Model. Quad Conference. October 11-14, 2022. Cincinnati, OH. **Hysinger E.** Development of a Pediatric Lung Nodule Model. Quad Conference. October 11-14, 2022. Cincinnati, OH.
26. **Hysinger E.** Implantable Bronchial Valves in Pediatrics. Quad Conference. October 11-14, 2022. Cincinnati, OH.
27. **Hysinger E.** Long-Term Pulmonary Impact in Airway Reconstruction Patients. Quad Conference. October 11-14, 2022. Cincinnati, OH.
28. **Hysinger E.** Non-Invasive Management of Tracheomalacia and Bronchomalacia. Quad Conference. October 11-14, 2022. Cincinnati, OH.
29. **Hysinger E.** Ventilator Management in Airway Surgery. Quad Conference. October 11-14, 2022. Cincinnati, OH.

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30. **Hysinger E.** Seeing Airway Dynamics: Development, Diagnosis, Outcomes and Treatment of Tracheomalacia. November 21, 2022. Madison, WI.
31. **Hysinger E.** Restoration of Airway Lumen Patency: Indications and Technique. September 9, 2023. Milan, Italy.
32. **Hysinger E.** Cone Beam CT with Augmented Fluoroscopy Pediatrics Bronchoscopy. September 22, 2023. Cincinnati, OH
33. **Hysinger E.** Cryotherapy and the Future of Interventional Pulmonology in Pediatrics. September 23, 2023. Cincinnati, OH
34. **Hysinger E.** BPD: Definitions, Phenotypes, Ventilation, and Outcomes Pulmonary Explorer Conference. October 20, 2023. Cincinnati, OH.
35. **Hysinger E** and Bug G. Interventional Pulmonology in Critically Ill Patients. PICU Research Conference. October 13, 2023. Cincinnati, OH.
36. **Hysinger E.** BPD: Definitions, Phenotypes, Ventilation, and Outcomes Pulmonary Explorer Conference. October 20, 2023. Cincinnati, OH.
37. **Hysinger E.** Medical Management and Pulmonary Complications in TEF. The Aerodigestive Society November 2-4, 2023. Denver, Colorado.
38. **Hysinger E.** BPD Outcomes and Patient Presentation. LungMAP. November 7, 2023. Cincinnati, OH.
39. **Hysinger E.** Xe Usage to Map Out Functional and Non-Functional Lung. Xe MRI Clinical Consortium Trial, January 17-19, 2024. Miami, FL.
40. **Hysinger E.** Cryotherapy and the Future of Pediatric Interventional Pulmonology. Cryotherapy in Pediatrics. March 2023, 2024. New York, NY.
41. **Hysinger E.** Restoration of Airway Lumen Patency. Advanced Pediatric Interventional Pulmonology. April 18-20, 2024. Dusseldorf, Germany.
42. **Hysinger E.** Cardiopulmonary Outcomes in BPD throughout the Lifespan. Icahn School of Medicine at Mount Sinai Pulmonary Grand Rounds. May 30, 2024, New York, NY.
43. **Hysinger E.** Endobronchial Valves for Pediatric BPF: Case Based Review. American Academy of Bronchoscopy and Interventional Pulmonology. Aug 22-24, 2024. Charlotte, NC.
44. **Hysinger E.** From Bench to Bedside to Education: Development of a Pediatric Lung Nodule Model. October 24-26, 2024. Seattle Washington.
45. **Hysinger E.** From Bench to Bedside to Education: Navigational Bronchoscopy in Pediatrics. October 24-26, 2024. Seattle Washington.

Lectures:

1. Fellow lecture, two per year on “Ventilator Settings and Waveforms”
2. Fellow lecture, one per year on “Outpatient management and Long-term Outcomes of Bronchopulmonary Dysplasia
3. Fellow Lecture, “Interventional Pulmonology for PICU”
4. Fellow Lecture, “BPD for PICU”

Academic Course:

2017-present Cincinnati Children’s Hospital Flexible Bronchoscopy Course

2022 Diagnostic, Advanced Diagnostic, and Interventional Bronchoscopy in Pediatrics

2023-2024 Cryotherapy in Pediatrics

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2023 Advanced Pediatric Interventional Pulmonology

2023 Cincinnati Children's Hospital Cryotherapy Seminar

2024 Interventional Pulmonology for the pediatric Patient

### Mentoring

<u>Mentee</u>	<u>Mentoring Role</u>	<u>Current Rank</u>
Doug Von Allmen	Research Mentor	Assistant Professor
Sara Zak	Research Mentor	Assistant Professor
Gregory Burg	Clinical/Research Mentor	Associate Professor
Ina St. Onge	Research Mentor	Assistant Professor
Lydia Bennett	Research Mentor	Medical Student
Max Yang	Research Mentor	Medical Student
Lauren Yoder	Research Mentor	Medical Student
Chaminndu Gunatilaka	Research Mentor	Post Doctorate
Nara Higano	Research Mentor	Instructor
Dani Bullard	Research Mentor	Pulmonary Fellow
Aimilia Papathanasiou	Research Mentor	Pediatric Resident

### **Service and Citizenship:**

#### Service

##### Professional Organizations:

2002-2006	Howard Hughes Medical Institute Community of Scholars
2010–2016	American Academy of Pediatrics
2014-2016	Center for Clinical Epidemiology and Biostatistics
2012-present	American Thoracic Society
2013-present	American College of Chest Physicians
2014-Present	Children's Hospital Neonatal Consortium
2016-Present	Aerodigestive Society

##### Committees:

2017-present	American Thoracic Society Programming Committee
2024-present	AABIP Pediatric Research Committee

##### Manuscript Reviews:

2015- present	Reviewer- <i>European Respiratory Journal</i> , 2-4 manuscripts per year
2017- present	Reviewer- <i>Pediatric Pulmonology</i> , 2-4 manuscripts per year
2017- present	Reviewer- <i>Pediatric Allergy, Immunology, and Pulmonology</i> , 1 manuscript

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per year  
2017- present Reviewer- *American Journal of Respiratory and Critical Care Medicine*,  
1-2 manuscripts per year  
2019- present Reviewer- *Chest*, 1-3 manuscripts per year  
2021- present Reviewer- *Journal of Pediatrics*, 1-2 manuscripts per year

Leadership

2017-present Co-Director Cincinnati Bronchopulmonary Dysplasia Center, Cincinnati  
Children's Hospital Medical Center  
2024-present Co-Chair, Pediatric Chapter of the American Academy of Bronchology  
and Interventional Pulmonology