

Curriculum Vitae

Joseph C. Cooley, DO

PERSONAL HISTORY:

Address: Santa Barbara Pulmonary Associates
2403 Castillo St, #206
Santa Barbara, CA 93105

EDUCATION:

2005-2010 University of Southern California, Los Angeles, CA
Bachelor of Science, Kinesiology

2011-2015 Midwestern University, Arizona College of Osteopathic Medicine, Glendale, AZ
Doctor of Osteopathic Medicine

2015-2018 University of Cincinnati, Internal Medicine Residency

2018-2021 University of Colorado, Pulmonary and Critical Care Fellowship

2021-2022 University of Colorado, Research Fellowship
Laboratory: Elizabeth Redente, PhD
Project: Targeting fibroblast apoptosis to treat pulmonary fibrosis

ACADEMIC APPOINTMENTS

2022 Instructor, Division of Pulmonary, Critical Care, and Sleep Medicine, Department of Medicine, National Jewish Health, Denver, CO

2024 Assistant Professor, Division of Pulmonary, Critical Care, and Sleep Medicine, Department of Medicine, National Jewish Health, Denver, CO

HONORS AND AWARDS:

2012 Kenneth A. Suarez AZCOM Summer Research Fellowship

2012-2015 Sigma Sigma Phi- Rho Chapter: Osteopathic Honor and Service Fraternity

2017 Abstract Scholarship: American Thoracic Society International Conference, Assembly on Clinical Problems.
Poster: Cryobiopsy for Diagnosing Interstitial Lung Disease

2020-2022 Reuben M. Cherniack Fellowship, National Jewish Health

2022 Abstract Scholarship: American Thoracic Society International Conference, Assembly on Respiratory Cell and Molecular Biology
Mini-Symposium: ABT-263 (Navitoclax) Induces Fibroblast Apoptosis and Reduces Fibrosis in Two Mouse Models of Progressive Fibrotic Interstitial Lung Disease

2020-2022 NIH Loan Repayment Program

Project: Targeting Bcl-2 Family Proteins to Facilitate Fibroblast Apoptosis and Promote the Resolution of Pulmonary Fibrosis

- 2022-2024 NIH Loan Repayment Program
Project: Understanding and Leveraging the Apoptotic Effects of Bcl-2 Inhibition and Nintedanib to Treat Pulmonary Fibrosis
- 2024-2025 Apprentice, Programming Committee, American Thoracic Society, Respiratory Cell & Molecular Biology (RCMB) Assembly

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

- 2017-Present American Thoracic Society
2014-Present American College of Chest Physicians

BOARD CERTIFICATIONS:

- 2018-Present Internal Medicine, American Board of Internal Medicine
2020-Present Pulmonary Medicine, American Board of Internal Medicine
2021-Present Critical Care Medicine, American Board of Internal Medicine

INVITED SEMINARS AND PRESENTATIONS:

- Feb, 2018 "Transbronchial Lung Cryobiopsy: Adverse Events Vary with Level of Care." Society of Critical Care Medicine International Conference, San Antonio, TX
- Sep, 2019 "Does inhibition of Bcl-2 facilitate fibroblast apoptosis and resolution of pulmonary fibrosis?" National Jewish Health, Pulmonary Research in Progress
- Mar, 2021 "Does inhibition of Bcl-2 facilitate fibroblast apoptosis and resolution of pulmonary fibrosis?" National Jewish Health, Pulmonary Research in Progress
- Mar, 2022 "Bcl-2 inhibition to treat pulmonary fibrosis" National Jewish Health, Pulmonary Research in Progress
- May 2022 "ABT-263 (Navitoclax) Induces Fibroblast Apoptosis and Reduces Fibrosis in Two Mouse Models of Progressive Fibrotic Interstitial Lung Disease." American Thoracic Society 2022 International Conference. San Francisco, CA
- Jan 2024 "Targeting fibroblast apoptosis to treat pulmonary fibrosis" National Jewish Health, Pulmonary Research in Progress
- May 2024 "Synergistic effects of nintedanib with BCL-2 inhibition to drive pro-fibrotic fibroblast apoptosis." American Thoracic Society 2024 International Conference. San Diego, CA
- June 2024 "Synergistic effects of nintedanib with BCL-2 inhibition to drive pro-fibrotic fibroblast apoptosis." Aspen Lung Conference 2024. Aspen, CO

TEACHING RECORD:

- 2012-2013 Tutor, Physiology and Biochemistry. Arizona College of Osteopathic Medicine
- 2015-2018 Master Teacher Track, University of Cincinnati Internal Medicine Residency Education pathway for residents with a passion for teaching.

2016-2017 Ultrasound Elective for Internal Medicine Residents.
Developed and coordinated an ultrasound curriculum for residents

2022-2026 ICU attending: St. Joseph's Hospital
Bedside teaching of internal medicine and family medicine residents

2026-Present ICU attending: Santa Barbara Cottage Hospital
Bedside teaching of internal medicine residents

MENTORING OF RESEARCH TRAINEES

Elizabeth Redente Laboratory

2022 Morgan Bridges, Undergraduate Student Portland University

2023 Morgan Bridges, Undergraduate Student Portland University

2023-2025 Daniel Foster, Graduate Student Toxicology Doctoral Program, TL1 Clinical Mentor

2024 Margaret Draeker, Undergraduate Student Colorado School of Mines

GRANTS AND AWARDS:

Completed:

2005-2009 Presidential Scholarship, University of Southern California

2005-2009 Town and Gown Scholarship, University of Southern California

5 T32 HL007085-44 (Schwartz) 2019-2021 12 calendar months
NIH/NHLBI
Multidisciplinary Research Training in Respiratory Disease
Role: Fellow

F32HL156281 06/2021-6/2022 12 calendar months
NRSA/NIH \$75,599 annual direct costs
Targeting Bcl-2 Family Proteins to Facilitate Fibroblast Apoptosis and Promote the Resolution of Pulmonary Fibrosis
Role: PI

Mentored Clinical Scientist Career Development (K08)
NIH/NHLBI Start Date: 07/15/2024 End Date: 04/30/2026
Role: PI Direct Costs: \$145,200. Indirect Costs: \$11,616

Bcl-2 dependent fibroblast resistance to apoptosis occurs through persistent IL-6 signaling

This project addressed a fundamental gap in knowledge about how fibroblasts gain BCL-2 mediated resistance to apoptosis through persistent IL-6 signaling. The results of our studies should provided insight into targeting IL-6 signaling in fibroblast to therapeutically restore fibroblast sensitivity to apoptosis as a treatment for progressive pulmonary fibrosis.

American Thoracic Society Unrestricted Research Grant
American Thoracic Society Start Date: 07/01/2024 12 calendar months
Role: PI Direct Costs: \$40,000 Indirect Costs: None

Synergy between BCL2 inhibition and nintedanib to treat progressive pulmonary fibrosis

This project investigated the potential of BCL-2 inhibition with venetoclax as an anti-fibrotic therapy in progressive pulmonary fibrosis through inducing fibroblast apoptosis, and determined if BCL-2 inhibition will work synergistically with nintedanib, a widely used anti-fibrotic.

BIBLIOGRAPHY:

A. Peer Reviewed Publications

1. **Cooley J**, Broderick TL, Al-Nakkash L, Plochocki JH. Effects of resveratrol treatment on bone and cartilage in obese diabetic mice. *J Diabetes Metab Disord*. 2015 Mar 12;14:10. doi: 10.1186/s40200-015-0141-6. PMID: 25789256; PMCID: PMC4363196.
2. **Cooley J**, Lee YCG, Gupta N. Spontaneous pneumothorax in diffuse cystic lung diseases. *Curr Opin Pulm Med*. 2017 Jul;23(4):323-333. doi: 10.1097/MCP.0000000000000391. PMID: 28590337; PMCID: PMC5563542.
3. **Cooley J**, Balestra R, Aragaki-Nakahodo AA, Caudell Stamper DN, Sriprasart T, Swank Z, Baughman RP, Benzaquen S. Safety of performing transbronchial lung cryobiopsy on hospitalized patients with interstitial lung disease. *Respir Med*. 2018 Jul;140:71-76. doi: 10.1016/j.rmed.2018.05.019. Epub 2018 May 25. PMID: 29957284.
4. Matta A, Gupta E, Swank Z, Aragaki-Nakahodo A, **Cooley J**, Caudell-Stamper DN, Benzaquen S. The use of transbronchial cryobiopsy for diffuse parenchymal lung disease in critically ill patients with acute hypoxemic respiratory failure-A case series. *Clin Respir J*. 2021 Jul;15(7):788-793. doi: 10.1111/crj.13362. Epub 2021 Mar 25. PMID: 33735531.
5. **Cooley JC**, Javkhlan N, Wilson JA, Foster DG, Edelman BL, Ortiz LA, Schwartz DA, Riches DW, Redente EF. Inhibition of antiapoptotic BCL-2 proteins with ABT-263 induces fibroblast apoptosis, reversing persistent pulmonary fibrosis. *JCI Insight*. 2023 Feb 8;8(3):e163762. doi: 10.1172/jci.insight.163762. PMID: 36752201.
6. **Cooley JC**, Redente EF. Getting the Timing Right: Controlling BCL-2 Inhibition as an Anti-Fibrotic Therapy. *Am J Respir Cell Mol Biol*. 2024 Jan 23. doi: 10.1165/rcmb.2023-0436ED. PMID: 38259233.
7. Chae KJ, Hwang HJ, Achcar RD, **Cooley JC**, Humphries SM, Kligerman S, Lynch. The central role of CT imaging in the management of pulmonary fibrosis. *Radiographics*. 2024 Jun;44(6):e230165. doi: 10.1148/rg.230165. PMID: 38752767.
8. **Cooley JC**, Fernandez Perez E. Are there over 200 distinct types of interstitial lung disease? *Respiratory Research*. 2024 Mar 25;25(1):141. doi: 10.1186/s12931-024-02734-0. PMID: 38528515; PMCID: PMC10964621.
9. Schott CA, Mohning MP, **Cooley JC**. Emerging Concepts in Therapeutic Interventions for Idiopathic Pulmonary Fibrosis. *Semin Respir Crit Care Med*. 2025 Aug;46(4):347-365. doi: 10.1055/a-2651-1937. Epub 2025 Jul 9. PMID: 40633816; PMCID: PMC12615049.
10. Kim SH, Nouws J, Ruwisch J, Woodard GA, **Cooley J**, Khoury J, Sun H, Doherty E, Piecychna M, Manning EP, Kang MJ, Bruscia EM, Wei H, Zhang Y, Yarovinsky TO, Hwa J, Zacharias WJ, Ingram J, Lee CG, Elias JA, Kaminski N, Redente EF, Herzog EL, Prasse A, Bucala R, Sauler M. Dysregulated alveolar type 2 epithelial cell proteostasis promotes fibrogenic macrophage migration inhibitory factor-CD74 signaling. *Sci Transl Med*. 2025 Dec

3;17(827):eadr2277. doi: 10.1126/scitranslmed.adr2277. Epub 2025 Dec 3. PMID: 41337540.

11. Pryor JB, Solomon JJ, Swigris JJ, Bang TJ, Fuentealba A, Keith R, Mohning MP, Koslow M, Fernández Pérez ER, Huie TJ, **Cooley J**, Fratelli C, Lynch DA, Yunt ZX, Kastsianok L. Peridiaphragmatic inflammation and fibrosis in myositis associated interstitial lung disease; a case series. *Respir Med Res*. 2026 May;89:101219. doi: 10.1016/j.resmer.2025.101219. Epub 2025 Oct 27. PMID: 41285096
12. Redente EF, Song T, Javkhlan N, Edelman BL, Foster DG, Wilson JA, Chakraborty S, **Cooley JC**, Gaurav R, Saguthi S, Seibold MA, Blumhagen RZ, Schwartz DA, Yang IV, Matsuda J, Bridges JP, Zemans RL, Tudor RM, Riches DWH. Conditional BCL-2 Expression in Fibroblasts Promotes Persistent Pulmonary Fibrosis which is Reversible by Therapeutic BCL-2 Inhibition. *Nat Commun*. 2026 Feb 28;17(1):3317. doi: 10.1038/s41467-026-69865-4. PMID: 41764163; PMCID: PMC13066449.
13. **Cooley JC**, Penick SK, Wilson JA, Javkhlan N, Foster DG, Edelman BL, Schott CA, Humphries SM, Lynch DA, Schwartz DA, Riches DWH, Redente EF. Nintedanib increases BCL-2 in fibrotic fibroblasts, enhancing ABT-199 apoptosis and fibrosis resolution. *Am J Respir Cell Mol Biol*. 2026 Aug 1;74(8):1103-1113. doi: 10.1093/ajrcmb/aanag045. PMID: 42089301; PMCID: PMC13424840.

B. Poster Presentations

1. **Cooley J**, Broderick TL, Al-Nakkash L, Plochocki JH. The Effects of Resveratrol on Bone and Growth Plate Cartilage in Leptin-deficient Mice. *Experimental Biology Conference*, April 21, 2013. Boston, MA.
12th Annual Kenneth A. Suarez Research Day, May 1, 2013. Glendale, AZ.
2. **Cooley J**, Foot R, Gupta N. Painless Cholecystitis: A rare cause of gram-negative sepsis. *American College of Physicians Ohio Chapter Scientific Meeting*. October 2016.
University of Cincinnati Resident Research Day. August 24, 2016.
3. **Cooley J**, Balestra R, Sriprasart T, Aragaki A, Benzaquen S. Cryobiopsy for Diagnosing Interstitial Lung Disease: A Two-Scope Technique. *American Thoracic Society 2017 International Conference*. Washington DC. May 23, 2017.
4. **Cooley J**, Lin N, Schmidt E. Progressive Respiratory Failure in a Patient with Sjogren's Syndrome. *American Thoracic Society 2019 International Conference*. Dallas. May 21, 2019.
5. **Cooley J**, Balestra R, Sriprasart T, Aragaki A, Benzaquen S. Safety and Utility of Transbronchial Lung Cryobiopsy in Mechanically Ventilated Patients with ARDS. *American Thoracic Society 2019 International Conference*. Dallas. May 20, 2019.
6. **Cooley J**, Edelman B, Black B, Riches CW, Redente EF. Inhibiting Bcl-2 Facilitates Fibroblast Apoptosis in a Silica Model of Pulmonary Fibrosis. *American thoracic Society 2020 International Conference*. Philadelphia. May 19, 2020.
7. **Cooley J**, Wilson J, Javkhlan N, Schwartz DA, Riches DW, Redente EF. Synergistic effects of nintedanib with BCL-2 inhibition to drive pro-fibrotic fibroblast apoptosis. *American Thoracic Society International Conference*. San Diego, CA. May 2024

C. Oral Presentations

1. **Cooley J**, Balestra R, Aragaki A, Benzaquen S. Transbronchial Lung Cryobiopsy: Adverse Events Vary with Level of Care. Society of Critical Care Medicine International Conference, San Antonio, TX. February 15, 2018
2. **Cooley J**, Javkhlan N, Wiilson J, Edelman B, Riches DW, Redente EF. ABT-263 (Navitoclax) Induces Fibroblast Apoptosis and Reduces Fibrosis in Two Mouse Models of Progressive Fibrotic Interstitial Lung Disease. *American Thoracic Society 2022 International Conference. San Francisco.* May 17, 2022.