

# LAUREN ZELL-BARAN, PhD, MPH

## Boettcher Investigator

Dr. Lauren Zell-Baran is an Assistant Professor in the Division of Environmental and Occupational Health Sciences at National Jewish Health in Denver, CO where she provides epidemiologic expertise for several grant funded research studies. She has particular interest in occupational and environmental exposures and their association with lung diseases.

### Education

2008-2012: Lehigh University, Bethlehem, PA – Bachelor of Science in Environmental Engineering

2015-2017: Colorado School of Public Health, Aurora, CO – Master of Public Health in Environmental and Occupational Health

2018-2023: Colorado School of Public Health, Aurora, CO – Doctor of Philosophy in Epidemiology

### Academic appointments

September 2023 - Present: National Jewish Health, Department of Medicine, Division of Environmental and Occupational Health Sciences – Assistant Professor

November 2023 - Present: Colorado School of Public Health, Department of Epidemiology – Assistant Professor

### Hospital, government or other professional positions

July 2012 – August 2016: Ramboll, Princeton, NJ & Philadelphia, PA – Risk Assessment Associate

August 2016 – July 2017: Colorado School of Public Health, Aurora, CO – Research and Teaching Assistant

August 2017 – September 2018: National Jewish Health, Denver, CO – Clinical Research Coordinator II

September 2018 – August 2023: National Jewish Health, Denver, CO – Staff Epidemiologist

### Honors, special recognitions and awards

- Delta Omega Public Health Honor Society 2017 (inducted)
- Mountain & Plains Education & Research Center Research Day 2020: Outstanding Environmental & Occupational Health Poster Presentation Award
- Selected participant in Society of Epidemiologist Research Dissertation Workshop 2021
- Hamman-Hoffman Scholarship in Epidemiology Recipient 2020-2022
- Mountain & Plains Education & Research Center Research Day 2023: Outstanding Occupational & Environmental Medicine Poster Presentation Award
- 2023 Community Collaboration Award from the University of Illinois Chicago School of Public Health and honourable mention for Methods and Laboratory Science from the National Institute of Occupational Safety and Health for manuscript “Pathology and Mineralogy Show Silica is a Major Cause of Severe Pneumoconiosis in US Coal Miners.”

### Membership in professional organizations

- Member of Colorado Environmental Health Association, 2015 – Present
- Member of Society of Epidemiologic Research, 2021 – Present
- Without Compensation (WOC) Appointment at the Rocky Mountain Regional Veterans Affairs Medical Center, 2022 - Present

### Major Committee and Service Responsibilities

- Conference abstract reviewer:
  - American Public Health Association (APHA) Epidemiology Section Abstract Reviewer 2019, 2022, 2023

- Colorado Public Health Association (CPHA) Public Health in the Rockies (PHiR) Abstract Reviewer 2019
- Society of Epidemiologic Research (SER) Abstract Reviewer 2023
- Master of Public Health Admissions Committee Member at Colorado School of Public Health 2023-2024

### **Certifications**

- Collaborative Institutional Training Initiative (CITI) 2016 – Present
- National Institute for Occupational Safety and Health (NIOSH) Spirometry 2017 – Present
- The National Hospital for Sick Children Multiple Breath Nitrogen Washout 2018
- Columbia University Environmental Mixtures Workshop 2021

### **Review and referee work**

Manuscript review for several journals including *Physiological Reports*, *Inhalational Toxicology*, and *PLOS ONE*, *International Archives of Occupational and Environmental Health*.

### **Invited extramural lectures, presentations and visiting professorships**

- “Are Military Occupational Specialty Codes (MOS) Useful Epidemiologic Tools to Predict Inhalational Exposures during Deployment?” *Western States Occupational Network Meeting 2018*, Presentation.
- “Identifying Progressive Silicosis in Western Stone Fabrication Workers and Advocating for Worker Protections.” *Public Health in the Rockies Conference 2019*, Presentation.
- “An attack on the lungs: changes in lung function following military deployment to Iraq and Afghanistan.” *Western States Occupational Network Meeting 2023*, Presentation.

### **Teaching record**

#### *Courses*

- Teaching Assistant EHOH 6614 Introduction to Environmental and Occupational Health at the Colorado School of Public Health (CSPH): Fall 2016 with Dr. Lee Newman and Spring 2017 with Dr. John Adgate
- Teaching Assistant EPID 6631 Analytical Epidemiology online course at CSPH: Summer 2020 with Dr. Molly Lamb

#### *Mentoring*

- Dymond Ruybal Master of Public Health Capstone Project 2018-2019 “Improving Health Promotion and Protection Strategies in Western Miners”

### **Grant support**

Boettcher Foundation’s Webb-Waring Biomedical Research Award 2024-2027. “Classification of cardiopulmonary exercise testing patterns among deployed military veterans with respiratory symptoms: informing treatment options.” Role: Principal Investigator (PI).

Mountain & Plains Education & Research Center Pilot Grant 2022-2023. “Longitudinal lung function and respiratory health in deployed military personnel.” Role: PI.

Department of Health and Human Services (HRSA) 2020-2025. “Black Lung Data and Resource Center (BLDRC).” Role: Co-PI with Dr. Kirsten Almberg (UIC) since 2023.

HRSA 2020-2025. “Black Lung Clinics Program (BLCP).” Role: Co-Investigator with Dr. Cecile Rose since 2023.

HRSA 2020-2024. “Radiation Exposure Screening and Education Program (RESEP).” Role: Co-Investigator with Dr. Cecile Rose since 2023.

Department of Defense (DoD) 2021-2026. “Study to improve deployment-related asthma by using L-citrulline supplementation (SEALS).” Role: Co-Investigator with Dr. Cecile Rose, Dr. Fernando Holguin (PI, University of Colorado) since 2023.

Alpha Foundation for the Improvement of Mine Safety and Health 2023-2025. "Mental Illness in US Coal Miners: A collaborative approach to understand risk factors and prevalence." Role: Co-Investigator with Dr. Cecile Rose, Dr. Kirsten Almborg (PI, UIC) since 2023.

## **Bibliography**

### *Graduate thesis*

"Exploring Immunotoxicity of Poly-and Perfluoroalkyl Substances in Children." Zell-Baran L, Starling AP, Norris JM, Adgate JL, Glueck DH, Brown JM. *ProQuest* 2023 ISBN: 9798380150163  
<https://www.proquest.com/docview/2860432621>

### *Papers published in peer-reviewed journals (First Author = 11)*

1. "Severe Silicosis in Engineered Stone Fabrication Workers — California, Colorado, Texas, and Washington, 2017–2019." Rose CS, Heinzerling A, Patel K, Sack C, Wolff J, **Zell-Baran L**, Weissman D, Hall E, Sooriash R, McCarthy R, Bojes H, Korotzer B, Flattery J, Lew Weinberg J, Potocko K, Jones K, Reed-Whitaker C, Reul N, LaSee C, Materna B, Raghu G, Harrison R. *MMWR Morbidity and Mortality Weekly Report* 2019;68:813–818. DOI: <https://doi.org/10.15585/mmwr.mm6838a1>
2. "Military Occupational Specialty Codes: Utility in Predicting Inhalation Exposures in Post-9/11 Deployers." **Zell-Baran L**, Meehan R, Wolff J, Strand M, Krefft SD, Gottschall EB, Macedonia T, Gross J, Sanders OL, Pepper GC, Rose CS. *Journal of Environmental and Occupational Medicine* Dec. 2019;61(12):1036-1040 DOI: <https://doi.org/10.1097/jom.0000000000001731>
3. "Respiratory Diseases in Post-9/11 Military Personnel Following Southwest Asia Deployment". Krefft SD, Wolff J, **Zell-Baran L**, Strand M, Gottschall EB, Meehan R, Rose CS. *Journal of Environmental and Occupational Medicine* May 2020;62(5):337-343. DOI: <https://doi.org/10.1097/jom.0000000000001817>
4. "Multiple Breath Washout: A Noninvasive Tool for Identifying Lung Disease in Symptomatic Military Deployers." **Zell-Baran L**, Krefft SD, Moore C, Wolff J, Meehan R, Rose CS. *Respiratory Medicine*. January 2021, 176:106281. DOI: <https://doi.org/10.1016/j.rmed.2020.106281>
5. "Multiple breath washout test data for healthy controls." **Zell-Baran L**, Krefft SD, Moore C, Wolff J, Meehan R, Rose CS. *Data in Brief*, February 2021, 34:106641. DOI: <https://doi.org/10.1016/j.dib.2020.106641>
6. "Semiquantitative Chest Computed Tomography Assessment Identifies Expiratory Central Airway Collapse in Symptomatic Military Personnel Deployed to Iraq and Afghanistan." Krefft SD, Oh A, **Zell-Baran L**, Wolff J, Moore CM, Macedonia TV, Rose CS. *Journal of Thoracic Imaging*, June 2021. DOI: <https://doi.org/10.1097/rti.0000000000000596>
7. "Cross-sectional associations between serum PFASs and inflammatory biomarkers in a population exposed to AFFF-contaminated drinking water." Barton\* KE, **Zell-Baran L\***, DeWitt JC, Brindley S, McDonough CA, Higgins CP, Adgate JL^, Starling AP^. *International Journal of Hygiene and Environmental Health*, March 2022, Volume 240, 113905. DOI: <https://doi.org/10.1016/j.ijheh.2021.113905>
8. "Prevalence and severity of abnormal lung function among U.S. former coal miners with and without radiographic coal workers' pneumoconiosis." Go LHT\*, Almborg KS\*, Rose CS, **Zell-Baran L**, Harris DA, Tomann M, Friedman LS, Weems DJ, Vonhof W, Mastel KM, Cohen RA. *Occupational and Environmental Medicine*. February 2022. DOI: <http://dx.doi.org/10.1136/oemed-2021-107872>
9. "Pathology and Mineralogy Show Silica is a Major Cause of Severe Pneumoconiosis in US Coal Miners." Cohen RA, Rose CS, Go LHT, **Zell-Baran L**, Almborg KS, Sarver E, Lowers H, Iwaniuk C, Clingerman S, Richardson D, Abraham JL, Cool C, Franko A, Hubbs AF, Murray J, Orandle MS, Sanyal S, Vorajee N, Peterson EL, Zulfikar R, FHY Green. *Annals of the American Thoracic Society*. March 2022. DOI: <https://doi.org/10.1513/AnnalsATS.202109-1064OC>
10. "Small airways and airspace inflammation and injury distinguish lung histopathology in deployed military personnel from healthy and diseased lungs." Rose CS, Moore CM, **Zell-Baran L**, Krefft SD, Wolff J, Pang K, Parr J, Cool C. *Human Pathology*. February 2022. DOI: <https://doi.org/10.1016/j.humpath.2022.02.014>
11. "Quantitative imaging analysis detects subtle airway abnormalities in symptomatic military deployers." **Zell-Baran L**, Humphries SM, Moore CM, Lynch DA, Charbonnier JP, Oh AS, Rose CS. *BMC Pulmonary Medicine*. April 2022; 22:163. DOI: <https://doi.org/10.1186/s12890-022-01960-w>

12. "Demographic, exposure, and clinical characteristics in a multi-national registry of engineered stone workers with silicosis." Hua J, **Zell-Baran L**, Go LHT, Kramer MR, Van Bree JB, Chambers D, Deller D, Newbigin K, Matula M, Fireman E, Dahbash M, Martinez-Gonzalez C, León-Jimenez A, Sack C, Sancho JF, Villar A, Almberg KS, Cohen RA\*, Rose CS\*. *Occupational and Environmental Medicine*. May 2022. DOI: <https://doi.org/10.1136/oemed-2021-108190>
13. "Vaccination Trends and Family-Level Characteristics Associated With Incomplete or Delayed Childhood Immunizations: The Healthy Start Study." **Zell-Baran L**, Starling AP, Glueck DH, Bekelman TA, Norris J, Adgate JL, Brown JM, Dabelea D. *American Journal of Health Promotion*. 2022. Online First. DOI: <https://doi.org/10.1177/08901171221136532>
14. "Mining tenure and job duties differ among contemporary and historic underground coal miners with progressive massive fibrosis." **Zell-Baran L**, Go LHT, Sarver E, Almberg KS, Iwaniuk C, Green FHY, Abraham JL, Cool C, Franko A, Hubbs AF, Murray J, Orandle MS, Sanyal S, Vorajee N, Cohen RA, Rose CS. *Journal of Environmental and Occupational Medicine*. April 2023; 65(4):p315-320. DOI: <https://doi.org/10.1097/JOM.0000000000002746>
15. "Unexplained Dyspnea Linked to Mitochondrial Myopathy Following Military Deployment to Southwest Asia and Afghanistan." Onofrei CD, Gottschall EB, **Zell-Baran L**, Rose CS, Kraus R, Pang K, Krefft SD. *Physiological Reports*. January 2023; 11:2. DOI: <https://doi.org/10.14814/phy2.15520>
16. "Deployment-Related Respiratory Disease: Where Are We?" Krefft SD, **Zell-Baran LM**. *Semin Respir Crit Care Med*. April 2023; 44(03): 370-377. DOI: <https://doi.org/10.1055/s-0043-1764407>
17. "Characterizing lung particulates using Quantitative Microscopy in coal miners with severe pneumoconiosis." Hua JT, Cool CD, Lowers HA, Go LHT, **Zell-Baran L**, Sarver EA, Almberg KS, Pang KD, Manjka SM, Franko AD, Vorajee NI, Cohen RA, Rose CS. *Archives of Pathology & Laboratory Medicine*. 2023. DOI: <https://doi.org/10.5858/arpa.2022-0427-0a>
18. "Historical shift in pathological type of progressive massive fibrosis among coal miners in the USA." Go LHT, Rose CS, **Zell-Baran L**, Almberg KS, Iwaniuk C, Clingerman S, Richardson DL, Abraham JL, Cool CD, Franko AD, Green FHY, Hubbs AF, Murray J, Orandle MS, Sanyal S, Vorajee NI, Sarver EA, Petsonk EL, Cohen RA. *Occupational and Environmental Medicine*. 2023; 80(8):425-430. DOI: <https://doi.org/10.1136/oemed-2022-108643>
19. "Findings on High Resolution Computed Tomography in Symptomatic Veterans with Deployment-Related Lung Disease." Rose CS, **Zell-Baran L**, Cool C, Moore CM, Wolff J, Oh AS, Koelsch T, Richards JC, Krefft SD, Wilson CG, Lynch DA. *Journal of Thoracic Imaging*. November 2023; 38:325–332. DOI: <https://doi.org/10.1097/rti.0000000000000742>
20. "Prenatal exposure to poly- and perfluoroalkyl substances and the incidence of asthma in early childhood." **Zell-Baran L**, Venter C, Dabelea D, Norris JM, Glueck DH, Adgate JL, Brown JM, Calafat AM, Pickett-Nairne K, Starling AP. *Environmental Research*. December 2023. DOI: <https://doi.org/10.1016/j.envres.2023.117311>
21. "Pathologic findings in severe coal workers' pneumoconiosis in contemporary U.S. coal miners." Cool CD, Murray J, Vorajee NI, Rose CS, **Zell-Baran L**, Sanyal S, Franko AD, Almberg KS, Iwaniuk C, Go LHT, Green FHY\*, Cohen RA\*. *Archives of Pathology & Laboratory Medicine*. 2023. DOI: <https://doi.org/10.5858/arpa.2022-0491-OA>
22. "Racial Differences in Respiratory Impairment, Pneumoconiosis, and Federal Compensation for Western U.S. Indigenous Coal Miners." Hua JT, **Zell-Baran L**, Moore CM, Rose CS. *Annals of ATS*. 2023. DOI: <https://doi.org/10.1513/AnnalsATS.202305-496OC>
23. "Prenatal exposure to poly- and perfluoroalkyl substances (2009-2014) and vaccine antibody titers of measles, mumps, rubella, and varicella in four- to eight-year-old children from the Healthy Start Cohort." **Zell-Baran L**, Dabelea D, Norris JM, Glueck DH, Adgate JL, Brown JM, Harrall KK, Calafat AM, Starling AP. *Environmental Health Perspectives*; December 2023; 131(12). DOI: <https://doi.org/10.1289/EHP12863>
24. "Letter-to-the-editor: Silicosis in Western U.S. Metal and Nonmetal Miners, 2002-2023." **Zell-Baran L**, Hua JT, Rose CS. *AJRCCM*. 2024. DOI: <https://doi.org/10.1164/rccm.202310-1846LE>
25. "Research Letter: Progressive Massive Fibrosis Identified at Federally Funded Black Lung Clinics in the US". Harris DA, Almberg KS, Blackley DJ, Cohen RA, Edwards C, Johnson B, Hall NB. Additional contributors: Laney AS, **Zell-Baran L**. *JAMA*. 2024. DOI: <https://doi.org/10.1001/jama.2023.25578>
26. "Particle morphology and elemental analysis of lung tissue from post-9/11 military personnel with biopsy-proven lung disease." Lowers H, **Zell-Baran L**, Arslan Z, Moore CM, Rose C. *Int. J. Environ. Res. Public Health*. 2024; 21(1),91. <https://doi.org/10.3390/ijerph21010091>

27. "Longitudinal changes in lung function following post-9/11 military deployment in symptomatic veterans." **Zell-Baran L**, Krefft S, Strand M, Rose CS. *Respiratory Medicine*. 2024; 227,107638. DOI: <https://doi.org/10.1016/j.rmed.2024.107638>
28. "In situ lung dust analysis by automated Field Emission Scanning Electron Microscopy with Energy Dispersive X-ray Spectroscopy: a method for assessing inorganic particles in lung tissue from coal miners." Sarver E, Keles C, Lowers H, **Zell-Baran L**, Go LHT, Hua J, Cool C, Rose CS, Green F, Almborg K, Cohen R. *Archives of Pathology & Laboratory Medicine*. 2024; 148 (7):e154-e169. DOI: <https://doi.org/10.5858/arpa.2024-0002-OA>
29. "Resting Diffusing Capacity and Severity of Radiographic Disease Predict Gas Exchange Abnormalities with Exercise in Former United States Coal Miners." Cohen RA\*, Go LHT\*, Friedman L, **Zell-Baran LM**, Rose CS, Almborg KS. *American Journal of Industrial Medicine*. 2024; 67(8):732-740. DOI: <https://doi.org/10.1002/ajim.23621>
30. "Measuring Lung Diffusing Capacity— An Opportunity for Improved Medical Surveillance and Disability Evaluation of Coal Miners." Go LHT\*, Almborg KS\*, Lee Friedman L, **Zell-Baran LM**, Rose CS, Cohen RA. *Occupational and Environmental Medicine* 2024; 81:296-301. DOI: <https://doi.org/10.1136/oemed-2023-109380>

*Scientific abstracts (First Author = 9)*

1. "Military Occupational Specialty Codes: Utility in predicting inhalational exposures in soldiers with deployment-related lung disease." Sanders OL, **Zell-Baran L**, Krefft SD, Strand M, Wolff J, Gottschall EB, Meehan R, Macedonia T, Rose CS. *American Occupational Health Conference* 2018.
2. "Longitudinal Analysis of Spirometry in Symptomatic Military Deployers Returning from Iraq and Afghanistan." **Zell-Baran L**, Krefft SD, Strand M, Wolff J, Gottschall EB, Rose CS. *American Journal of Respiratory and Critical Care Medicine* 2018;197:A6078.
3. "Utility of Military Occupational Specialty Codes and a Respiratory Hazard Exposure Matrix in Characterizing Deployment Inhalational Exposures". Rose CS, **Zell-Baran L**, Krefft SD, Strand M, Wolff J, Gottschall EB, Sanders OL, Pepper G, Macedonia TV, Meehan R. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A4254. Presentation by Rose CS.
4. "Pathologic Type of Progressive Massive Fibrosis in the National Coal Workers' Autopsy Study (NCWAS) 1971-1996." Cohen RA, Orandle M, Hubbs AF, Almborg KS, Go LH, Clingerman S, Fluharty K, Dodd T, Rose CS, Abraham JL, Sanyal S, Franko A, Murray J, Vorajee N, **Zell-Baran L**, Petsonk EL, Zulfikar R, Green FHY. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A2758.
5. "Mineralogic analysis of lung tissue from a former coal miner with rapidly progressive pneumoconiosis and progressive massive fibrosis." Go LH, Lowers HA, Sanyal S, Abraham JL, Green FHY, Franko A, Murray J, Vorajee N, Rose CS, **Zell-Baran L**, Petsonk EL, Zulfikar R, Thomas L, Almborg KS, Cohen RA. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A1820.
6. "Quantitative Airway Wall Thickening by Pi10 On Chest Imaging is Increased in Symptomatic Military Deployers Compared to Controls, and is Inversely Related to Forced Expiratory Volume in One Second." **Zell-Baran L**, Rose CS, Lynch DA, Charbonnier J, Oh AS, Wolff J, Kluiber A, Wilson C, Humphries SM. *American Journal of Respiratory and Critical Care Medicine* 2020;201:A4344.
7. "CT Imaging to Define Expiratory Central Airway Collapse (ECAC) and Examination of Risk Factors for ECAC in Personnel Deployed to Iraq and Afghanistan." Krefft SD, Oh AS, Wolff J, **Zell-Baran L**, Rose CS. *American Journal of Respiratory and Critical Care Medicine* 2020;201:A4336.
8. "Intra- and Inter-rater Reliability of Pathologic Classification of Type of Progressive Massive Fibrosis Among Deceased U.S. Coal Miners." Almborg KS, **Zell-Baran L**, Abraham JL, Cool C, Franko A, Green FH, Murray J, Sanyal S, Vorajee N, Go LH, Rose CS, Petsonk EL, Hubbs AF, Orandle M, Clingerman S, Liguori D, Kennedy K, Zulfikar R, Cohen RA. *American Journal of Respiratory and Critical Care Medicine* 2020;201:A2632.
9. "Mineralogic Analysis of Respirable Dust from 24 Underground Coal Mines in Four Geographic Regions of the United States." Sarver E, Keles C, Lowers H, Zulfikar R, **Zell-Baran L**, Vorajee N, Sanyal S, Rose CS, Petsonk EL, Murray J, Green FH, Go LH, Franko A, Cool C, Abraham JL, Almborg KS, Cohen RA. *American Journal of Respiratory and Critical Care Medicine* 2020;201:A2635.

10. "Mineralogic analysis of lung tissue from coal miners demonstrates greater silica burden in modern cases of progressive massive fibrosis." Go LH, Abraham JL, Lowers H, Sanyal S, Alberg KS, Cool C, Franko A, Green FH, Hubbs AF, Murray J, Orandle MS, Petsonk EL, Rose CS, Ruybal D, Sarver E, Vorajee NI, **Zell-Baran L**, Zulfikar R, Cohen RA. *American Journal of Respiratory and Critical Care Medicine* 2020,201:A2631.
11. "Engineered Stone Silicosis: An Emerging Global Outbreak with Impacts in Colorado." **Zell-Baran L**, Macmurdo M, Wolff J, Rose CS. *Mountain & Plains Education & Resource Center Research Day 2020*.
12. "Contemporary Coal Miners with Progressive Massive Fibrosis Have Shorter Mining Tenures Compared to Their Historic Counterparts." **Zell-Baran L**, Alberg KS, Go LH, Cohen RA, Iwaniuk C, Halldin CN, Abraham JL, Cool C, Franko A, Green FH, Murray J, Sanyal S, Vorajee N, Sarver E, Lowers H, Rose CS. *American Thoracic Society Conference 2021*.
13. "Occupational Exposure and Clinical Characteristics Among Engineered Stone Fabrication Workers with Silicosis in an International Registry." Hua JT, **Zell-Baran L**, Go LHT, Kramer MR, vanBree JB, Chambers DC, Deller DN, Newbigin K, Matula MA, Fireman EM, Dahbash M, Martinez-Gonzalez C, León-Jimenez A, Sack CS, Alberg KS, Cohen RA, Rose CS. *American Thoracic Society Conference 2021*.
14. "Silicosis Prevention in Engineered Stone Industries in Ohio and Colorado: A Cross-Sectional Employer Survey." Macmurdo M, **Zell-Baran L**, Luna B, Rose CS. *American Thoracic Society Conference 2021*.
15. "Decreased Exercise Tolerance and Unexplained Dyspnea May Be Linked to Mitochondrial Myopathy Following Military Deployment to Iraq and Afghanistan." Onofrei C, Gottschall EB, Kraus R, **Zell-Baran L**, Pang K, Krefft SD, Rose CS. *American Thoracic Society Conference 2021*.
16. "Substantial burden of lung obstruction observed among former U.S. coal miners who never smoked." Alberg KS, Friedman L, Go LH, Harris DA, Mastel K, Rose CS, Tomann M, Vonhof W, Weems Jr. D, **Zell-Baran L**, Cohen RA. *American Thoracic Society Conference 2021*.
17. "Clinically significant lung function abnormalities among US former coal miners with and without radiographic coal workers' pneumoconiosis." Go LH, Alberg KS, Rose CS, **Zell-Baran L**, Harris D, Tomann M, Vonhof W, Weems D, Friedman L, Mastel K, Cohen RA. *American Thoracic Society Conference 2021*.
18. "Pathologic Findings of Progressive Massive Fibrosis in Contemporary Coal Miners Show Features of Accelerated Silicosis Compared to Historical Cases." Cohen RA, Rose CS, Go LHT, **Zell-Baran L**, Alberg KS, Sarver E, Lowers H, Iwaniuk C, Clingerman S, Richardson D, Abraham JL, Cool C, Franko A, Hubbs AF, Murray J, Orandle M, Sanyal S, Vorajee N, Green FH. *American Thoracic Society Conference 2021*.
19. "Increase in the Proportion of Silica-Type Progressive Massive Fibrosis Suggested Over the History of the National Coal Workers' Autopsy Study." Go LH, Abraham JL, Alberg KS, Cool C, Green FH, Vorajee N, Franko A, Sarver E, Lowers H, Murray J, Sanyal S, Rose CS, **Zell-Baran L**, Richardson D, Hubbs A, Orandle M, Clingerman S, Cohen RA. *American Thoracic Society Conference 2021*.
20. "Burden of Cardiorespiratory Impairment and Depression in Western Miners." **Zell-Baran L**, Kraus R, Pang K, Gottschall EB, Rose CS. *American Thoracic Society Conference 2022*.
21. "Demonstration of a novel quantitative microscopy technique for automated characterization of in situ particulate matter in coal miners with progressive massive fibrosis." Hua J, **Zell-Baran L**, Go LH, Cool C, Lowers H, Alberg K, Sarver E, Majka S, Pang K, Cohen RA\*, Rose CS\*. *American Thoracic Society Conference 2022*.
22. "Increased silica burden is associated with pathologic features of alveolar proteinosis, mature and immature silicotic nodules in US coal miners with progressive massive fibrosis (PMF)." Cohen RA, Rose CS, Go LH, **Zell-Baran L**, Alberg KS, Sarver E, Lowers H, Iwaniuk C, Clingerman S, Richardson D, Abraham JL, Cool C, Franko A, Hubbs A, Murray J, Orandle M, Sanyal S, Vorajee N, Petsonk EL, Zulfikar R, Green FH. *American Thoracic Society Conference 2022*.
23. "Lung function and radiographic disease worse among former miners in Central Appalachia than other regions of the United States." Alberg KS, Go LH, **Zell-Baran L**, Weems Jr. D, Mastel K, Rose CS, Cohen RA. *American Thoracic Society Conference 2022*.
24. "Asthma endotypes in post-9/11 deployment-related asthma." Krefft SD, **Zell-Baran L**, Pang K, Onofrei C, Kraus R, Sharma S, Holguin F, Rose CS. *American Thoracic Society Conference 2022*. Abstract A3841.

25. "Prenatal exposure to poly- and perfluoroalkyl substances and serum concentrations of vaccine antibodies in early childhood." **Zell-Baran L**, Norris JM, Glueck DH, Adgate J, Brown J, Dabelea D, Harrall DD, Starling AP. *Annual Conference of International Society of Environmental Epidemiology*. September 2022. DOI: <https://ehp.niehs.nih.gov/doi/10.1289/isee.2022.P-0491>
26. "Analysis of retained dust characteristics in lung tissue from previously deployed military personnel." Lowers H, **Zell-Baran L**, Arslan Z, Rose CS. *Geological Society of American Abstracts with programs. Vol 54, No. 5*. October 2022. DOI: <https://doi.org/10.1130/abs/2022AM-382104>
27. "Changes in lung function after deployment to Southwest Asia among military personnel with respiratory symptoms." **Zell-Baran L**, Krefft SD, Strand M, Rose CS. *Mountain & Plains Education & Resource Center Research Day 2023*.
28. "Predictors of Longitudinal Lung Function Changes Following Deployment to Southwest Asia." **Zell-Baran L**, Krefft SD, Strand M, Rose CS. *Am J Respir Crit Care Med* 2023;207:A5400; accepted for poster presentation. DOI: [https://doi.org/10.1164/ajrccm-conference.2023.207.1\\_MeetingAbstracts.A5400](https://doi.org/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A5400)
29. "Comparison Of Lung Clearance Index And Forced Oscillation Testing In Southwest Asia-Deployed Military Veterans With Deployment Lung Disease." Kamineni S, Falvo MJ, Toczylowski R, Wilczynski A, **Zell-Baran L**, Krefft SD. *Am J Respir Crit Care Med* 2023;207:A1857; accepted for poster presentation. DOI: [https://doi.org/10.1164/ajrccm-conference.2023.207.1\\_MeetingAbstracts.A1857](https://doi.org/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A1857)
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