Dear EOPH members,

We hope you all have a happy holiday and a great new year! In this December issue of the EOPH newsletter, we share some of our members’ recent “epub ahead of print” articles, information about the Best of ATS Video Lecture Series, and accomplishments to celebrate from EOPH members. Also, be sure to listen to the upcoming BreatheEasy podcast episode where EOPH Assembly member Dr. Kent Pinkerton discusses Lung Health in the California Wildfires.

Please let us know about your recent publications, awards, and achievements. Also, we would appreciate suggestions or feedback for future issues at kbailey@unmc.edu or tara.nordgren@medsch.ucr.edu.

Sincerely,

Your web committee co-chairs,

Kristina Bailey and Tara Nordgren
Recent publications

This section highlights some of our assembly members’ exciting research that was recently ‘e-published.” It is possible that our search may miss your best work, so please send your recent publications to kbailey@unmc.edu or tara.nordgren@medsch.ucr.edu.

**Environmental and Occupational Exposures**

Revised Iron-Soot Exposure and Nose-to-brain Transport of Inhaled Ultrafine Particles.

Occupational exposures to solvents and metals are associated with fixed airflow obstruction.

Occupational exposure to pesticides are associated with fixed airflow obstruction in middle-age.

Air Pollution from Livestock Farms Is Associated with Airway Obstruction in Neighboring Residents.

Personal exposure of dairy workers to dust, endotoxin, muramic acid, ergosterol and ammonia on large-scale dairies in the high plains western United States.

Current and new challenges in occupational lung diseases.

A systematic review of the public health risks of bioaerosols from intensive farming.

Prevalence of occupational exposure to asthmagens derived from animals, fish and/or shellfish among Australian workers.

Recommendations for a Clinical Decision Support System for Work-Related Asthma in Primary Care Settings.
An immunoproteomic approach revealed antigenic proteins enhancing serodiagnosis performance of bird fancier’s lung.

Environmental Effects of Intensive Livestock Farming.
Sigsgaard T, Balmes J.
Am J Respir Crit Care Med. 2017 Nov 1;196(9):1092-1093.

Polymerization of hexamethylene diisocyanate in solution and a 260.23 m/z [M+H]+ ion in exposed human cells.
Wisnewski AV, Liu J, Redlich CA, Nassar AF.

Allergic Inflammation and Asthma

Adiposity and Asthma in a Nationwide Study of Children and Adults in the United States.
Forno E, Han YY, Libman IM, Muzumdar RH, Celedón JC.

Atopy in people aged 40 years and over: Relation to airflow limitation.

Allergic sensitization in American children of Middle Eastern ethnicity at age 2.
Havstad S, Sitarik AR, Johnson CC, Zoratti EM, Ownby DR, Levin AM, Wegienka G.

Zoonotic helminth exposure and risk of allergic diseases: A study of two generations in Norway.

Gene-environment Interactions Associated with the Severity of Acute Asthma Exacerbation in Children.
Kantor DB, Phipatanakul W, Hirschhorn JN.

Residential greenness and allergic respiratory diseases in children and adolescents - A systematic review and meta-analysis.
Environ Res. 2017 Nov;159:212-221.

Asthma control status in pregnancy, body mass index, and maternal vitamin D levels.
Mirzakhani H, O’Connor G, Bacharier LB, Zeiger RS, Schatz MX, Weiss ST, Litonjua AA.

Morisset J, Johansson KA, Jones KD, Wolters PJ, Collard HR, Walsh SLF, Ley B; HP Delphi Collaborators.
Am J Respir Crit Care Med. 2017 Nov 27.
IL-1-inhibitory κB kinase ε-induced glycolysis augment epithelial effector function and promote allergic airways disease.

Bedroom allergen exposures in US households.

Combined effects of multiple risk factors on asthma in school-aged children.

Vitamin D supplementation in pregnancy, prenatal 25(OH)D levels, race, and subsequent asthma or recurrent wheeze in offspring: Secondary analyses from the Vitamin D Antenatal Asthma Reduction Trial.

Chronic Bronchitis and Emphysema

A simple algorithm for the identification of clinical COPD phenotypes.
Eur Respir J. 2017 Nov 2;50(5).

Menopause, lung function and obstructive lung disease outcomes: a systematic review.
Campbell B, Davis SR, Abramson MJ, Mishra G, Handelsman DJ, Perret JL, Dharmage SC.
Climacteric. 2017 Nov 6;1-10.

Do COPD subtypes really exist? COPD heterogeneity and clustering in 10 independent cohorts.

Association of sputum and blood eosinophil concentrations with clinical measures of COPD severity: an analysis of the SPIROMICS cohort.

Diagnosing alpha-1 antitrypsin deficiency: the first step in precision medicine.
Hersh CP.

Bronchitis and Its Associated Risk Factors in First Nations Children.

Severe COPD cases from Korea, Poland, and USA have substantial differences in respiratory symptoms and other respiratory illnesses.
Handgrip Strength in Chronic Obstructive Pulmonary Disease. Associations with Acute Exacerbations and Body Composition.

Prevalence and burden of chronic bronchitis symptoms: results from the BOLD study.
Eur Respir J. 2017 Nov 22;50(5).

European Respiratory Society statement: diagnosis and treatment of pulmonary disease in α1-antitrypsin deficiency.
Eur Respir J. 2017 Nov 30;50(5).

Heavy Metals

Serum Trace Elements and Heavy Metal Levels in Patients Diagnosed with Chronic Otitis Media and Their Association with Surgical Treatment Outcomes.

Burden of higher lead exposure in African-Americans starts in utero and persists into childhood.
Cassidy-Bushrow AE, Sitarik AR, Havstad S, Park SK, Bielak LF, Austin C, Johnson CC, Arora M.

Investigating causal relation between prenatal arsenic exposure and birthweight: Are smaller infants more susceptible?

Application of linear mixed-effects model with LASSO to identify metal components associated with cardiac autonomic responses among welders: a repeated measures study.
Zhang J, Cavallari JM, Fang SC, Weisskopf MG, Lin X, Mittleman MA, Christiani DC.

Lung Cancer

Environmentally prevalent polycyclic aromatic hydrocarbons can elicit co-carcinogenic properties in an in vitro murine lung epithelial cell model.
Arch Toxicol. 2017 Nov 23.

Toll-like receptor expression in human non-small cell lung carcinoma: potential prognostic indicators of disease.
Bauer AK, Upham BL, Rondini EA, Tennis MA, Velmuragan K, Wiese D.

Diffuse peritoneal mesothelioma: A case series of 62 patients including paraoccupational
exposures to chrysotile asbestos.
Kradin RL, Eng G, Christiani DC.

A Panel of Novel Detection and Prognostic Methylated DNA Markers in Primary Non-Small Cell Lung Cancer and Serum DNA.

Association between polymorphisms in microRNA target sites and survival in early-stage non-small cell lung cancer.

Mathematical Analyses for Biomedical Research

Integrating data from multiple time-location measurement methods for use in exposure assessment: the Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air).
Hazlehurst MF, Spalt EW, Curl CL, Davey ME, Vedal S, Burke GL, Kaufman JD.

Integrated powered density: Screening ultrahigh dimensional covariates with survival outcomes.
Hong HG, Chen X, Christiani DC, Li Y.

Quantitative Computed Tomography Metrics From the Transplanted Lung can Predict Forced Expiratory Volume in the First Second After Lung Transplantation.
Mortani Barbosa EJ Jr, Shou H, Simpsons S, Gee J, Tustison N, Lee JC.

Evolutionary dynamics of an expressed MHC class IIβ locus in the Ranidae (Anura) uncovered by genome walking and high-throughput amplicon sequencing.
Mulder KP, Cortazar-Chinarro M, Harris DJ, Crottini A, Campbell Grant EH, Fleischer RC, Savage AE.
Dev Comp Immunol. 2017 Nov;76:177-188.

Big Data Knowledge in Global Health Education.
Olayinka O, Kekeh M, Sheth-Chandra M, Akpinar-Elci M.

Remarkable spatial variation in the seroprevalence of Coxiella burnetii after a large Q fever epidemic.

Testing for gene-environment interaction under exposure misspecification.
Sun R, Carroll RJ, Christiani DC, Lin X.

Outdoor and Household Air Pollution

Air pollution and suicide risk: another adverse effect of air pollution?
Chen JC, Samet JM.

How Do We "Help the World Breathe"?

**Air pollution exposure and IPF: prevention when there is no cure.**

**Ambient air pollution, adipokines, and glucose homeostasis: The Framingham Heart Study.**

**24-h Nitrogen dioxide concentration is associated with cooking behaviors and an increase in rescue medication use in children with asthma.**

**Physical Injury, Veterans, and World Trade Center Workers**

**Blast Injury and Cardiopulmonary Symptoms in U.S. Veterans: Analysis of a National Registry.**

**Post-9/11 sarcoidosis in WTC-exposed firefighters and emergency medical service workers.**

**Blood Leukocyte Concentrations, FEV1 Decline, and Airflow Limitation: A 15-Year Longitudinal Study of WTC-Exposed Firefighters.**

**Radiation**

**Gilbert W. Beebe Symposium on 30 Years after the Chernobyl Accident: Current and Future Studies on Radiation Health Effects.**

**Specialized Pro-Resolving Lipid Mediators**

**Effect of diets rich in either saturated fat or n-6 polyunsaturated fatty acids and supplemented with long-chain n-3 polyunsaturated fatty acids on plasma lipoprotein profiles.**

**The role of specialized pro-resolving mediators in maternal-fetal health.**

**Fish oil supplementation in chronic obstructive pulmonary disease: feasibility of conducting a randomised controlled trial.**
Docosahexaenoic acid enhances amphiregulin-mediated bronchial epithelial cell repair processes following organic dust exposure.

**Tobacco Products**

**E-Cigarettes: Mucus Measurements Make Marks.**
Evans CM, Dickey BF, Schwartz DA.

**Neighbourhood characteristics and health outcomes: evaluating the association between socioeconomic status, tobacco store density and health outcomes in Baltimore City.**
Tob Control. 2017 Nov 23.

**Clinical significance of cigarette smoking and dust exposure in pulmonary alveolar proteinosis: a Korean national survey.**

**Longitudinal Associations of Local Cigarette Prices and Smoking Bans with Smoking Behavior in the Multi-Ethnic Study of Atherosclerosis.**

**Malondialdehyde-Acetaldehyde (MAA) Protein Adducts Are Found Exclusively in the Lungs of Smokers with Alcohol Use Disorders and Are Associated with Systemic Anti-MAA Antibodies.**

**Things Worth Celebrating!**

EOPH Assembly member Dr. Anthony Szema recently published two new books with contributions from several ATS members: *World Trade Center Pulmonary Diseases and Multi-Oran System Manifestations*, and *Unusual Diseases with Common Symptoms: A Clinical Casebook*. Dr. Szema, who was recently promoted to Clinical Associate Professor of at Northwell Health, was also recently profiled about Iraq Afghanistan War Lung Injury (IAW-LI) research on SciTech Now on PBS. The clip will air on PBS Learning Media [here](#). Congratulations, Dr. Szema!

We know that many of you have successes to share with us. Please help us expand this section by emailing us your good news: kbailey@unmc.edu or tnordgren@unmc.edu.
Best of ATS Video Lecture Series

This Best of ATS Video Lecture Series (BAVLS) invites ATS members to submit a teaching video (2-15 minutes) that demonstrates that their lecture is among the best in the field by **December 31**. For more information, go to [https://www.thoracic.org/professionals/clinical-resources/video-lecture-series/submission-process.php](https://www.thoracic.org/professionals/clinical-resources/video-lecture-series/submission-process.php).

BreatheEasy Podcast: Lung Health in the California Wildfires

In this Breathe Easy Podcast, Michael Lanspa, MD interviews EOPH Assembly member Kent Pinkerton, PhD, a researcher of environmental pollution at UC Davis, about the harms of breathing in smoke from the wildfires, and discusses practical strategies to reduce exposure. For more information, please refer to the ATS recommendations available [here](https://www.thoracic.org). Please be sure to listen in, and consider subscribing to the BreatheEasy Podcast to stay up to date on a variety interesting and informative topics relating to pulmonary and critical care medicine.

ATS 2018 PGME course: Does my patient have environmental or occupational lung disease?

Drs. Peggy S. Lai (Massachusetts General Hospital/Harvard School of Public Health) and Yuh-Chin Tony Huang (Duke) will be co-chairing a PGME course on Friday, May 18, 2018 titled, “Does my patient have environmental or occupational lung disease?”. Overarching concepts covered include “tools of the trade,” “common lung diseases through the lens of environmental and occupational exposures,” and “common and emerging environmental and occupational exposures that cause lung disease.” Please contact us or the co-chairs for more information, and be sure to sign up for this interesting and informative course!