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Assembly on Environmental, Occupational and Population Health (EOPH) Newsletter

EOPH web editorial committee

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Dear EOPH members,

Welcome to the February 2017 EOPH newsletter. Included are the “epub ahead of print” articles from our membership for January 2017. In addition, please take note of the Opportunity for Advocacy section to learn of ways that you can voice your opinion on matters of relevance to the EOPH. Trainees and Mentors will also want to take note of several opportunities found at the end of the newsletter. Please send us notice of any EOPH member accomplishments so that we can include them in the March 2017 newsletter. We welcome any input into what else you would like to see in the newsletter. Please contact us at kbailey@unmc.edu or tnordgren@unmc.edu with any noteworthy publications, achievements, or suggestions for future issues.

Sincerely,

Your web committee co-chairs,

Kristina Bailey and Tara Nordgren

Opportunity for Advocacy

One of our members, Dr. Jessica Castner, has made a public statement regarding the international gas pipeline proposal that affects the international export of “fracked” gas, currently under review in New York State. In this statement, Dr. Castner has discussed work performed by the ATS and the EOPH Assembly. If other members of EOPH are interested in also providing public comments regarding this proposal, **public comments are due by February 24, 2017**. Comments must be sent to Michael Higgins, NYSDEC – Division of Environmental Permits, 625 Broadway, 4th Floor, Albany, NY, 12233-170. Phone: 518-402-9179; Fax: 518-402-9168; email: NFGNA2016Project@dec.ny.gov.

Recent publications

This section highlights some of our members’ best work in January 2017. We have only included “epub ahead of print” articles in an effort to simplify our search method while making you aware of your colleagues’ most recent work.

Air Pollution

[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. J Expo Sci Environ Epidemiol. 2017 Jan 25. PMID: 28120831

[Should we be concerned about air quality as a contributor to poor outcomes in lung transplant recipients?](#) Kaufman JD, Raghu G. Eur Respir J. 2017 Jan 18;49(1). pii: 1602369. PMID: 28100554

[Response to "Comment on 'Individual and Neighborhood Socioeconomic Status and the Association between Air Pollution and Cardiovascular Disease'".](#) Chi GC, Hajat A, Miller KA, Whitsel EA, Griffin BA, Shih RA, Kaufman JD. Environ Health Perspect. 2017 Jan 1;125(1):A16. PMID: 28055950

[A joint ERS/ATS policy statement: what constitutes an adverse health effect of air pollution? An analytical framework.](#) Thurston GD, Kipen H, Annesi-Maesano I, Balme J, Brook RD, Cromar K, De Matteis S, Forastiere F, Forsberg B, Frampton MW, Grigg J, Heederik D, Kelly FJ, Kuenzli N, Laumbach R, Peters A, Rajagopalan ST, Rich D, Ritz B, Samet JM, Sandstrom T, Sigsgaard T, Sunyer J, Brunekreef B. Eur Respir J. 2017 Jan 11;49(1). PMID: 28077473

[Analysis of home dust for *Staphylococcus aureus* and staphylococcal enterotoxin genes using quantitative PCR.](#) Ludwig S, Jimenez-Bush I, Brigham E, Bose S, Diette G, McCormack MC, Matsui EC, Davis MF. Sci Total Environ. 2017 Jan 4. PMID: 28063655

[Interactions between cigarette smoking and ambient PM_{2.5} for cardiovascular mortality.](#) Turner MC, Cohen A, Burnett RT, Jerrett M, Diver WR, Gapstur SM, Krewski D, Samet JM, Pope CA 3rd. Environ Res. 2017 Jan 28;154:304-310. PMID: 28142053

[Longitudinal Associations Between Ambient Air Pollution with Insulin Sensitivity, \$\beta\$ -Cell Function, and Adiposity in Los Angeles Latino Children.](#) Alderete TL, Habre R, Toledo-Corral CM, Berhane K, Chen Z, Lurmann FW, Weigensberg MJ, Goran MI, Gilliland FD. Diabetes. 2017 Jan 30. PMID: 28137791

[Residential proximity to abandoned uranium mines and serum inflammatory potential in chronically exposed Navajo communities.](#) Harmon ME, Lewis J, Miller C, Hoover J, Ali AS, Shuey C, Cajero M, Lucas S, Zychowski K, Pacheco B, Erdei E, Ramone S, Nez T, Gonzales M, Campen MJ. J Expo Sci Environ Epidemiol. 2017 Jan 25. PMID: 28120833

[Influence of exposure to coarse, fine and ultrafine urban particulate matter and their biological constituents on neural biomarkers in a randomized controlled crossover study.](#) Liu L, Urch B, Szyszkowicz M, Speck M, Leingartner K, Shutt R, Pelletier G, Gold DR, Scott JA, Brook JR, Thorne PS, Silverman FS. Environ Int. 2017 Jan 20. PMID: 28117141

Smoking, Secondhand Smoke, E-cigarettes

[Use and Perceived Risk of Electronic Cigarettes Among North Carolina Middle and High School Students.](#) Giovacchini CX, Pacek L, McClernon FJ, Que LG. N C Med J. 2017 1-2;78(1):7-13. PMID: 28115555

[Evidence for large-scale gene-by-smoking interaction effects on pulmonary function.](#) Aschard H, Tobin MD, Hancock DB, Skurnik D, Sood A, James A, Vernon Smith A, Manichaikul AW, Campbell A, Prins BP, Hayward C, Loth DW, Porteous DJ, Strachan DP, Zeggini E, O'Connor GT, Brusselle GG, Boezen HM, Schulz H, Deary IJ, Hall IP, Rudan I, Kaprio J, Wilson JF, Wilk JB, Huffman JE, Hua Zhao J, de Jong K, Lyytikäinen LP, Wain LV, Jarvelin MR, Kähönen M, Fornage M, Polasek O, Cassano PA, Barr RG, Rawal R, Harris SE, Gharib SA, Enroth S, Heckbert SR, Lehtimäki T, Gyllenstein U, Society Scientific Group U, Jackson VE, Gudnason V, Tang W, Dupuis J, Soler Artigas M, Joshi AD, London SJ, Kraft P. Int J Epidemiol. 2017 Jan 12. PMID: 28082375

Methodology

[Optimal flow rate sampling designs for studies with extended exhaled nitric oxide analysis.](#)

Molshatzki N, Eckel S. J Breath Res. 2017 Jan 20. PMID: 28104897

Occupational Lung Disease/Occupational Health

[Occupational lung diseases: from old and novel exposures to effective preventive strategies.](#)

Cullinan P, Muñoz X, Suojalehto H, Agius R, Jindal S, Sigsgaard T, Blomberg A, Charpin D, Annesi-Maesano I, Gulati M, Kim Y, Frank AL, Akgün M, Fishwick D, de la Hoz RE, Moitra S. Lancet Respir Med. 2017 Jan 6. PMID: 28089118

[Epistatic effect of TLR-1, -6 and -10 polymorphisms on organic dust-mediated cytokine response.](#)

Smith LM, Weissenburger-Moser LA, Heires AJ, Bailey KL, Romberger DJ, LeVan TD. Genes Immun. 2017 Jan 26. PMID: 28123183

[An epigenome-wide association analysis of cardiac autonomic responses among a population of welders.](#)

Zhang J, Liu Z, Umukoro PE, Cavallari JM, Fang SC, Weisskopf MG, Lin X, Mittleman MA, Christiani DC. Epigenetics. 2017 Jan 11:1-6. PMID: 28075199

[Social media use for occupational lung disease.](#)

Harber P, Leroy G. Curr Opin Allergy Clin Immunol. 2017 Jan 30. PMID: 28141625

Clinical Trials

[Cardiovascular and cerebrovascular events among patients receiving omalizumab: Pooled analysis of patient-level data from 25 randomized, double-blind, placebo-controlled clinical trials.](#)

Iribarren C, Rothman KJ, Bradley MS, Carrigan G, Eisner MD, Chen H. J Allergy Clin Immunol. 2017 Jan 17. PMID: 28108337

Epidemiologic Studies

[Maternal Folate Intake during Pregnancy and Childhood Asthma.](#)

Han YY, Celedón JC. Am J Respir Crit Care Med. 2017 Jan 15;195(2):155-156. PMID: 28084816

[An epigenome-wide association study of total serum immunoglobulin E in Hispanic children.](#)

Chen W, Wang T, Pino-Yanes M, Forno E, Liang L, Yan Q, Hu D, Weeks DE, Baccarelli A, Acosta-

Perez E, Eng C, Han YY, Boutaoui N, Laprise C, Davies GA, Hopkin JM, Moffatt MF, Cookson WO, Canino G, Burchard EG, Celedón JC. *J Allergy Clin Immunol*. 2017 Jan 6. PMID: 28069425

[Alcohol and Lung Cancer Risk Among Never Smokers: A Pooled Analysis from the International Lung Cancer Consortium and the SYNERGY Study.](#) Fehringer G, Brenner DR, Zhang ZF, Lee YA, Matsuo K, Ito H, Lan Q, Vineis P, Johansson M, Overvad K, Riboli E, Trichopoulou A, Sacerdote C, Stucker I, Boffetta P, Brennan P, Christiani DC, Hong YC, Landi MT, Morgenstern H, Schwartz AG, Wenzlaff AS, Rennert G, McLaughlin JR, Harris CC, Olivo-Marston S, Orlow I, Park BJ, Zauderer M, Barros Dios JM, Ruano Raviña A, Siemiatycki J, Koushik A, Lazarus P, Fernández-Somoano A, Tardon A, Le Marchand L, Brenner H, Saum KU, Duell EJ, Andrew AS, Szeszenia-Dabrowska N, Lissowska J, Zaridze D, Rudnai P, Fabianova E, Mates D, Foretova L, Janout V, Bencko V, Holcatova I, Pesatori AC, Consonni D, Olsson A, Straif K, Hung RJ. *Int J Cancer*. 2017 Jan 24. PMID: 28120396

[Patterns of Immune Development in Urban Preschoolers with Recurrent Wheeze and/or Atopy.](#) Gern JE, Calatroni A, Jaffee KF, Lynn H, Dresen A, Cruikshank WW, Lederman HM, Sampson HA, Shreffler W, Bacharier LB, Gergen PJ, Gold DR, Kattan M, O'Connor GT, Sandel MT, Wood RA, Bloomberg GR. *J Allergy Clin Immunol*. 2017 Jan 13. PMID: 28089873

[Early adulthood body mass index, cumulative smoking, and esophageal adenocarcinoma survival.](#) Spreafico A, Coate L, Zhai R, Xu W, Chen ZF, Chen Z, Patel D, Tse B, Brown MC, Heist RS, Dodbiba L, Teichman J, Kulke M, Su L, Eng L, Knox J, Wong R, Darling GE, Christiani DC, Liu G. *Cancer Epidemiol*. 2017 Jan 12;47:28-34. PMID: 28088657

[Longitudinal Changes in Anthropometry and Body Composition in University Freshmen.](#) Hootman KC, Guertin KA, Cassano PA. *J Am Coll Health*. 2017 Jan 13:0. PMID: 28085641

[Strategies to alter the natural history of childhood asthma.](#) Lee-Sarwar KA, Bacharier LB, Litonjua AA. *Curr Opin Allergy Clin Immunol*. 2017 Jan 11. PMID: 28079559

[Validation of a Dish-Based Semiquantitative Food Questionnaire in Rural Bangladesh.](#) Lin PD, Bromage S, Mostofa MG, Allen J, Oken E, Kile ML, Christiani DC. *Nutrients*. 2017 Jan 10;9(1). PMID: 28075369

[Effects of Childhood Asthma on the Development of Obesity among School-aged Children.](#) Chen Z, Salam MT, Alderete TL, Habre R, Bastain TM, Berhane K, Gilliland FD. *Am J Respir Crit Care Med*. 2017 Jan 19. PMID: 28103443

[Incidence of and Risk Factors for Skin Cancer in Organ Transplant Recipients in the United States.](#) Garrett GL, Blanc PD, Boscardin J, Lloyd AA, Ahmed RL, Anthony T, Bibee K, Breithaupt A,

Cannon J, Chen A, Cheng JY, Chiesa-Fuxench Z, Colegio OR, Curiel-Lewandrowski C, Del Guzzo CA, Disse M, Dowd M, Eilers R Jr, Ortiz AE, Morris C, Golden SK, Graves MS, Griffin JR, Hopkins RS, Huang CC, Bae GH, Jambusaria A, Jennings TA, Jiang SI, Karia PS, Khetarpal S, Kim C, Klintmalm G, Konicke K, Koyfman SA, Lam C, Lee P, Leitenberger JJ, Loh T, Lowenstein S, Madankumar R, Moreau JF, Nijhawan RI, Ochoa S, Olasz EB, Otchere E, Otley C, Oulton J, Patel PH, Patel VA, Prabhu AV, Pugliano-Mauro M, Schmults CD, Schram S, Shih AF, Shin T, Soon S, Soriano T, Srivastava D, Stein JA, Sternhell-Blackwell K, Taylor S, Vidimos A, Wu P, Zajdel N, Zelac D, Arron ST. JAMA Dermatol. 2017 Jan 11. PMID: 28097368

[Safety and Benefits of Inhaled Hypertonic Saline Following Airway Challenges with Endotoxin and Allergen in Asthmatics.](#) Alexis NE, Bennett WD, Peden DB. J Asthma. 2017 Jan 17:0. PMID: 28095128

[Positive Airway Pressure Therapies and Hospitalization in Chronic Obstructive Pulmonary Disease.](#) Vasquez MM, McClure LA, Sherrill DL, Patel SR, Krishnan J, Guerra S, Parthasarathy S. Am J Med. 2017 Jan 12. PMID: 28089799

Basic and Translational Science

[Vagal Innervation is Required for Pulmonary Function Phenotype in Htr4^{-/-} Mice.](#) House J, Nichols CE, Li H, Brandenberger C, Virgincar R, Miller L, Driehuys B, Zeldin DC, London S. Am J Physiol Lung Cell Mol Physiol. 2017 Jan 27. PMID: 28130264

[NFATc3 and VIP in Idiopathic Pulmonary Fibrosis and Chronic Obstructive Pulmonary Disease.](#) Szema AM, Forsyth E, Ying B, Hamidi SA, Chen JJ, Hwang S, Li JC, Sabatini Dwyer D, Ramiro-Diaz JM, Giermakowska W, Gonzalez Bosc LV. PLoS One. 2017 Jan 26;12(1):e0170606. PMID: 28125639

[Alcohol drives S-nitrosylation and redox activation of protein phosphatase 1 causing bovine airway cilia dysfunction.](#) Price ME, Pavlik JA, Liu M, Ding SJ, Wyatt TA, Sisson JH. Am J Physiol Lung Cell Mol Physiol. 2017 Jan 6. PMID: 28062487

[Integrated Metabolomics and Proteomics Highlight Altered Nicotinamide- and Polyamine Pathways in Lung Adenocarcinoma.](#) Fahrman JF, Grapov DD, Wanichthanarak K, DeFelice BC, Salemi MR, Rom WN, Gandara DR, Phinney BS, Fiehn O, Pass H, Miyamoto S. Carcinogenesis. 2017 Jan 3. PMID: 28049629

[Dual RNA-seq reveals viral infections in asthmatic children without respiratory illness which are associated with changes in the airway transcriptome.](#) Wesolowska-Andersen A, Everman JL, Davidson R, Rios C, Herrin R, Eng C, Janssen WJ, Liu AH, Oh SS, Kumar R, Fingerlin TE, Rodriguez-

Santana J, Burchard EG, Seibold MA. Genome Biol. 2017 Jan 19;18(1):12. PMID: 28103897

Strain Differences in a Murine Model of Air Pollutant-induced Nonatopic Asthma and Rhinitis.

Harkema JR, Hotchkiss LA, Vetter NA, Jackson-Humbles DN, Lewandowski RP, Wagner JG. Toxicol Pathol. 2017 Jan;45(1):161-171. PMID: 28068894

Lanthanum deposition from oral lanthanum carbonate in the upper gastrointestinal tract.

Hoda RS, Sanyal S, Abraham JL, Everett JM, Hundemer GL, Yee E, Lauwers GY, Tolkoﬀ-Rubin N, Misdradj J. Histopathology. 2017 Jan 30. PMID: 28134986

The role of sulfenic acids in cellular redox signaling: Reconciling chemical kinetics and molecular detection strategies.

Heppner DE, Janssen-Heininger YM, van der Vliet A. Arch Biochem Biophys. 2017 Jan 23. PMID: 28126370

Vascular K_{ATP} channels mitigate severe muscle O₂ delivery-utilization mismatch during contractions in chronic heart failure rats.

Holdsworth CT, Ferguson SK, Colburn TD, Fees AJ, Craig JC, Hirai DM, Poole DC, Musch TI. Respir Physiol Neurobiol. 2017 Jan 21. PMID: 28119150

Attention Trainees and Mentors!

ATS will be holding a Fellows Track Symposium (FTS) at the 2017 ATS Conference in Washington, DC. The FTS will provide pulmonary, critical care, and sleep medicine fellows enrolled in an ACGME-accredited, US training program with an orientation to the sessions most relevant to their training while at ATS 2017. **Applications are required for participation.** Interested fellows can obtain more information and submit their application [HERE](#) by **March 1!**

The Minority Training Development Scholarship Program (MTDS) has scholarships available to ATS 2017 trainee attendees. The MTDS aims to increase representation of underrepresented minorities as defined by NIH (e.g., African American, Hispanic, Native American, Alaskan Native, and Pacific Islander) in pulmonary, critical care, and sleep medicine research by offering scholarships for these trainees in US-based programs to attend ATS 2017. **Applications are required for consideration.** Interested trainees can obtain more information and submit their application [HERE](#) by **March 6.**

EOPH Mentorship program

The ATS EOPH Assembly Mentorship program is now open for online registration! If you are attending ATS 2017 in Washington DC, sign up today as a mentor, a mentee or both.

The mentoring programs pair trainees and early career professionals with more seasoned members within their respective assembly. The deadline for signing up is **Friday, March 3rd, 2017**. Please visit our [ATS Mentoring Program](#) page to learn more.

ATS MENTORING PROGRAM SPOT

We will once again offer a meeting space exclusively for mentors and mentees to meet at the ATS 2017 International Conference in Washington, DC. The Assembly Mentoring Programs Meeting Spot will be located in the Renaissance, Washington DC Hotel in the Carnegie room on the (Ballroom Level). The room will be available: Friday May 19th – Tuesday May 23rd from 7AM to 7PM

Things worth celebrating

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.



Send us your interesting cases

The web committee is currently soliciting interesting pulmonary cases with an EOPH focus for additional [Quick Hits](#). These cases will be posted on the website and highlighted in this newsletter. They will be peer reviewed prior to acceptance, so this is a good opportunity for your trainees. kbailey@unmc.edu or tnordgren@unmc.edu.