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Volume 2 | Issue 11
September 2016

EOPH Newsletter

EOPH web editorial committee

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Dear EOPH members,

We hope that you all had a wonderful summer. Please enjoy the September 2016 EOPH newsletter. Included are the “epub ahead of print” articles from our membership for August 2016. We are certain that our members are doing great things worthy of recognition. Please send us notice of these accomplishments so that we can include them in the August 2016 newsletter. We welcome any input into what else you would like to see in the newsletter. Please contact us at kbailey@unmc.edu or with any noteworthy publications, achievements, or suggestions for future issues.

Sincerely,

Your web committee co-chairs,

Kristina Bailey and Craig Glazer



Recent publications

This section highlights some of our members' best work in August 2016. 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.

Asthma

[Innate Immunity and Asthma Risk in Amish and Hutterite Farm Children.](#)

Please see the announcement of webinar below discussing this paper below.

Stein MM, Hrusch CL, Gozdz J, Igartua C, Pivniouk V, Murray SE, Ledford JG, Marques dos Santos M, Anderson RL, Metwali N, Neilson JW, Maier RM, Gilbert JA, Holbreich M, Thorne PS, Martinez FD, von Mutius E, Vercelli D, Ober C, Sperling AI. N Engl J Med. 2016 Aug 4;375(5):411-21.

[Effect of aeroallergen sensitization on asthma control in African American teens with persistent asthma.](#) Burbank AJ, Grabich SC, Todorich K, Frye M,

Loughlin C, Duncan K, Robinette C, Mills K, Peden DB, Diaz-Sanchez D, Hernandez ML. Ann Allergy Asthma Immunol. 2016 Aug 23. PMID: 27566861

[Prevalence of Asthma in School Children on the Arizona-Sonora](#)

[Border.](#) Carr TF, Beamer PI, Rothers J, Stern DA, Gerald LB, Rosales CB, Van Horne YO, Pivniouk ON, Vercelli D, Halonen M, Gameros M, Martinez FD, Wright AL. J Allergy Clin Immunol Pract. 2016 Aug 17. PMID: 27544711

[Obesity and Airway Dysanapsis in Children With and Without Asthma.](#)

Forno E, Weiner DJ, Mullen J, Sawicki G, Kurland G, Han YY, Cloutier MM, Canino G, Weiss ST, Litonjua AA, Celedón JC. Am J Respir Crit Care Med. 2016 Aug 23. PMID: 27552676

[Maternal Folate Intake During Pregnancy and Childhood Asthma in a Population Based Cohort.](#) Parr CL, Magnus MC, Karlstad Ø, Haugen M, Refsum H,

Ueland PM, McCann A, Nafstad P, Håberg SE, Nystad W, London SJ. Am J Respir Crit Care Med. 2016 Aug 12. PMID: 27518161

COPD

[Biomarkers Predictive of Exacerbations in the SPIROMICS and](#)

[COPDGene Cohorts.](#) Keene JD, Jacobson S, Kechris K, Kinney GL, Foreman MG, Doerschuk CM, Make BJ, Curtis JL, Rennard SI, Barr RG, Bleecker ER, Kanner RE, Kleerup EC, Hansel NN, Woodruff PG, Han MK, Paine Iii R, Martinez FJ, Bowler RP, O'Neal WK; for COPDGene and SPIROMICS Investigators. Am J Respir Crit Care Med. 2016 Aug 31. PMID: 27579823

[Age and Small Airway Imaging Abnormalities in Subjects With and Without Airflow Obstruction in SPIROMICS.](#) Martinez CH, Diaz AA, Meldrum C, Curtis JL, Cooper CB, Pirozzi C, Kanner RE, Paine Iii R, Woodruff PG, Bleecker ER, Hansel NN, Barr RG, Marchetti N, Criner GJ, Kazerooni EA, Hoffman EA, Ross BD, Galban CJ, Cigolle CT, Martinez FJ, Han MK; SPIROMICS Investigators. Am J Respir Crit Care Med. 2016 Aug 26. PMID: 27564413

Cancer

[Tuberculosis, smoking and risk for lung cancer incidence and mortality.](#) Hong S, Mok Y, Jeon C, Jee SH, Samet JM. Int J Cancer. 2016 Aug 13. PMID: 27521774

[Malignant peritoneal mesothelioma and Crohn disease.](#) Butnor KJ, Pavlisko EN, Sporn TA, Roggli VL. J Clin Pathol. 2016 Aug 2. PMID: 27484913

[Association of sugary beverages with survival among patients with cancers of the upper aerodigestive tract.](#) Miles FL, Chang SC, Morgenstern H, Tashkin D, Rao JY, Cozen W, Mack T, Lu QY, Zhang ZF. Cancer Causes Control. 2016 Aug 18. PMID: 27539643

[Air pollution affects lung cancer survival.](#) Eckel SP, Cockburn M, Shu YH, Deng H, Lurmann FW, Liu L, Gilliland FD. Thorax. 2016 Aug 4. PMID: 27491839

Occupational Exposures

[Development of a job-task-exposure matrix to assess occupational exposure to disinfectants among US nurses.](#) Quinot C, Dumas O, Henneberger PK, Varraso R, Wiley AS, Speizer FE, Goldberg M, Zock JP, Camargo CA Jr, Le Moual N. Occup Environ Med. 2016 Aug 26. PMID: 27566782

[Biodistribution of inhaled metal oxide nanoparticles mimicking occupational exposure: a preliminary investigation using enhanced darkfield microscopy.](#) Guttenberg M, Bezerra L, Neu-Baker NM, Del Pilar Sosa Idelchik M, Elder A, Oberdörster G, Brenner SA. J Biophotonics. 2016 Aug 16. PMID: 27528427

[Post-traumatic Stress Disorder, Bronchodilator Response, and Incident Asthma in World Trade Center Rescue and Recovery Workers.](#) de la Hoz RE, Jeon Y, Miller GE, Wisnivesky JP, Celedón JC. Am J Respir Crit Care Med. 2016 Aug 22. PMID: 27548615

[Researching Complex and Multi-Level Workplace Factors Affecting Disability and Prolonged Sickness Absence.](#) Kristman VL, Shaw WS, Boot CR, Delclos GL, Sullivan MJ, Ehrhart MG; Hopkinton Conference Working Group on Workplace Disability Prevention. J Occup Rehabil. 2016 Aug 22. PMID: 27550629

Genomics

[Susceptibility to Childhood Pneumonia: A Genome-Wide Analysis.](#) Hayden LP, Cho MH, McDonald MN, Crapo JD, Beaty TH, Silverman EK, Hersh CP; COPDGene Investigators. Am J Respir Cell Mol Biol. 2016 Aug 10. PMID: 27508494

[Tollip SNP rs5743899 Modulates Human Airway Epithelial Responses to Rhinovirus Infection.](#) Huang C, Jiang D, Francisco D, Berman R, Wu Q, Ledford JG, Moore CM, Ito Y, Stevenson C, Munson D, Li L, Kraft M, Chu HW. Clin Exp Allergy. 2016 Aug 11. PMID: 27513438

[Gene Expression Profiling in Blood Provides Reproducible Molecular Insights into Asthma Control.](#) Croteau-Chonka DC, Qiu W, Martinez FD, Strunk RC, Lemanske RF Jr, Liu AH, Gilliland FD, Millstein J, Gauderman WJ, Ober C, Krishnan JA, White SR, Naureckas ET, Nicolae DL, Barnes KC, London SJ, Barraza-Villarreal A, Carey VJ, Weiss ST, Raby BA; Asthma BioRepository for Integrative Genomic Exploration (Asthma BRIDGE) Consortium. Am J Respir Crit Care Med. 2016 Aug 5. PMID: 27494826

[Genes Interacting with Occupational Exposures to Low Molecular Weight Agents and Irritants on Adult-Onset Asthma in Three European Studies.](#) Rava M, Ahmed I, Kogevinas M, Le Moual N, Bouzigon E, Curjuric I, Dizier MH, Dumas O, Gonzalez JR, Imboden M, Mehta AJ, Tubert-Bitter P, Zock JP, Jarvis D, Probst-Hensch NM, Demenais F, Nadif R. Environ Health Perspect. 2016 Aug 9. PMID: 27504716

Smoking and E-cigarettes

[Acute Exacerbations and Lung Function Loss in Smokers With and Without COPD.](#) Dransfield MT, Kunisaki KM, Strand MJ, Anzueto A, Bhatt SP, Bowler RP, Criner GJ, Curtis JL, Hanania NA, Nath H, Putcha N, Roark SE, Wan ES, Washko GR, Wells JM, Wendt CH, Make BJ; COPDGene Investigators. Am J Respir Crit Care Med. 2016 Aug 24. PMID: 27556408

[Secondhand Tobacco Smoke Exposure Associations with DNA Methylation of the Aryl Hydrocarbon Receptor Repressor.](#) Reynolds LM, Magid HS, Chi GC, Lohman K, Barr RG, Kaufman JD, Hoeschele I, Blaha MJ, Navas-Acien A, Liu Y. Nicotine Tob Res. 2016 Aug 31. PMID: 27613907

Mechanisms

[Determinants of host susceptibility to murine respiratory syncytial virus \(RSV\) disease identify a role for the innate immunity scavenger receptor MARCO gene in human infants.](#) High M, Cho HY, Marzec J, Wiltshire T, Verhein KC, Caballero MT, Acosta PL, Ciencewicks J, McCaw ZR, Kobzik L, Miller-DeGraff L, Gladwell W, Peden DB, Serra ME, Shi M, Weinberg C, Suzuki O, Wang X, Bell DA, Polack FP, Kleeberger SR. EBioMedicine. 2016 Aug 6. PMID: 27554839

[Effects of IL-4 on Pulmonary Fibrosis and the Accumulation and Phenotype of Macrophage Subpopulations Following Thoracic](#)

[Irradiation.](#) Groves AM, Johnston CJ, Misra RS, Williams JP, Finkelstein JN. Int J Radiat Biol. 2016 Aug 19;1-36. PMID: 27539247

[ANGPTL4- \$\alpha\$ v \$\beta\$ 3 integrin interaction counteracts hypoxia-induced vascular permeability by modulating Src signalling downstream of](#)

[VEGFR2.](#) Gomez Perdiguero E, Liabotis-Fontugne A, Durand M, Faye C, Ricard-Blum S, Simonutti M, Augustin S, Robb BM, Paques M, Valenzuela DM, Murphy AJ, Yancopoulos GD, Thurston G, Galaup A, Monnot C, Germain S. J Pathol. 2016 Aug 31. PMID: 27577973

[HIV Controller T Cells Effectively Inhibit Viral Replication in Alveolar](#)

[Macrophages.](#) Walker-Sperling VE, Merlo CA, Buckheit RW 3rd, Lambert A, Tarwater P, Kirk GD, Drummond MB, Blankson JN. AIDS Res Hum Retroviruses. 2016 Aug 2. PMID: 27353255

Modeling, Diagnostics, and Prognostics

[Evaluating the mechanistic evidence and key data gaps in assessing the potential carcinogenicity of carbon nanotubes and nanofibers in humans.](#)

Kuempel ED, Jaurand MC, Møller P, Morimoto Y, Kobayashi N, Pinkerton KE, Sargent LM, Vermeulen RC, Fubini B, Kane AB. Crit Rev Toxicol. 2016 Aug 18;1-58. PMID: 27537422

[Whole blood microRNAs as a prognostic classifier for acute respiratory distress syndrome 28-day mortality.](#)

Zhu Z, Zhang R, Liang L, Su L, Lu Q, Baccarelli AA, Bajwa EK, Thompson BT, Christiani DC. Intensive Care Med. 2016 Aug 9. PMID: 27506755

[Telomere-related lung fibrosis is diagnostically heterogeneous but uniformly progressive.](#)

Newton CA, Batra K, Torrealba J, Kozlitina J, Glazer CS, Aravena C, Meyer K, Raghu G, Collard HR, Garcia CK. Eur Respir J. 2016 Aug 18. PMID: 27540018

[Biomarker Levels of Toxic Metals among Asian Populations in the U.S.:](#)

[NHANES 2011-2012.](#) Awata H, Linder S, Mitchell LE, Delclos GL. Environ Health Perspect. 2016 Aug 12. PMID: 27517362

Therapies

[Randomised, double-blind, placebo-controlled trial with azithromycin selects for anti-inflammatory microbial metabolites in the emphysematous](#)

[lung.](#) Segal LN, Clemente JC, Wu BG, Wikoff WR, Gao Z, Li Y, Ko JP, Rom WN, Blaser MJ, Weiden MD. Thorax. 2016 Aug 2. PMID: 27486204

[Treatment of Systemic Sclerosis-Related Interstitial Lung Disease: A](#)

[Review of Existing and Emerging Therapies.](#) Volkmann ER, Tashkin DP. Ann Am Thorac Soc. 2016 Aug 25. PMID: 27560196

Clinical References and Protocols

[Spirometry reference values for a Kyrgyz population.](#) Vinnikov D, Blanc PD, Brimkulov N. Clin Respir J. 2016 Aug 3. PMID: 27486907

[SPIROMICS Protocol for Multicenter Quantitative CT to Phenotype the Lungs.](#) Sieren JP, Newell JD Jr, Barr RG, Bleecker ER, Burnette N, Carretta EE, Couper D, Goldin J, Guo J, Han MK, Hansel NN, Kanner RE, Kazerooni EA, Martinez FJ, Rennard S, Woodruff PG, Hoffman EA; SPIROMICS Research Group. Am J Respir Crit Care Med. 2016 Aug 2. PMID: 27482984

Things worth celebrating

Dr. Anthony Szema, who is a member of the Columbia University Child Psychiatric Epidemiology Group as well as an assistant professor of occupational medicine, epidemiology and preventive medicine at Hofstra Northwell School of Medicine, coined the term World Trade Center Mind Body Lung Injury. He recently received grant funding will help co-investigators study the interactions between psychic trauma and airborne hazards.

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.



Upcoming Asthma Webinar

Please join us for a Webinar Journal Club sponsored by the Assembly on Allergy, Immunology & Inflammation (AII), the Assembly on Environmental, Occupational and Population Health (EOPH), the Assembly on Pediatrics (PEDS), and the Section on Genetics and Genomics (SGG), on **Wednesday, September 28 at 3pm EDT** that will feature the article:

“Innate Immunity and Asthma Risk in Amish and Hutterite Farm Children”

Michelle Stein, Cara Hrusch, Justyna Gozdz and colleagues that appeared in the August 4, 2016 issue of the *New England Journal of Medicine*.

We are fortunate to have a presentation of the paper by the authors.

Please register for the webinar in order to participate in the journal club. To reserve your Webinar seat today [click here](#).



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.