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Assembly on Environmental, Occupational, and Population Health Newsletter

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EOPH

Web Editorial Committee

Tara Nordgren, PhD

Anna Nolan, MD

Christopher Rider, PhD

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Dear EOPH members,

Happy New Year! In this January issue of the EOPH newsletter, we share some of our members' recent "epub ahead of print" articles as well as other recent accomplishments by members in our assembly and fields. If you would like to keep up-to-date on the newest articles being published by our members and colleagues in the field, consider following us on Twitter ([@ATS_EOPH](#)) and Facebook ([@ATS.EOPH](#)). The ATS Environmental Health Policy Committee is also now on Twitter ([@AtsHealth](#))!

Do you have a topic you would like to hear more about or a journal article that you would like to hear discussed? Send all ideas/announcements to tara.nordgren@medsch.ucr.edu.

Sincerely,

Your Web Editorial Committee



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 tara.nordgren@medsch.ucr.edu.

Air Pollution and Environmental Exposures

[The Association of Ambient Air Pollution with Sleep Apnea: The Multi-Ethnic Study of Atherosclerosis.](#) Billings ME, Gold D, Szpiro A, Aaron CP, Jorgensen N, Gasset A, Leary PJ, Kaufman JD, Redline SR.

Ann Am Thorac Soc. 2018 Dec 20. doi: 10.1513/AnnalsATS.201804-248OC.

PMID:30571166

[Air Pollution in the Asia-Pacific Region: A Joint APSR/ATS Perspective.](#)

North CM, Rice MB, Ferkol T, Gozal D, Hui C, Jung SH, Kuribayashi K, McCormack MC, Mishima M, Morimoto Y, Song Y, Wilson KC, Kim WJ, Fong KM.

Am J Respir Crit Care Med. 2018 Dec 3. doi: 10.1164/rccm.201804-0673PP.

PMID:30508489

[Prenatal exposure to air pollution, maternal diabetes and preterm birth.](#)

Padula AM, Yang W, Lurmann FW, Balmes J, Hammond SK, Shaw GM.

Environ Res. 2018 Dec 15;170:160-167. doi: 10.1016/j.envres.2018.12.031.

PMID:30579990

[Prenatal particulate air pollution exposure and sleep disruption in preschoolers: Windows of susceptibility.](#)

Bose S, Ross KR, Rosa MJ, Chiu YM, Just A, Kloog I, Wilson A, Thompson J, Svensson K, Rojo MMT, Schnaas L, Osorio-Valencia E, Oken E, Wright RO, Wright RJ.

Environ Int. 2019 Jan 17;124:329-335. doi: 10.1016/j.envint.2019.01.012.

PMID:30660846

Asthma and Allergy

[A Pediatric Asthma Risk Score to better predict asthma development in young children.](#) Biagini Myers JM, Schauburger E, He H, Martin LJ, Kroner J, Hill GM, Ryan PH, LeMasters GK, Bernstein DI, Lockey JE, Arshad SH, Kurukulaaratchy R, Khurana Hershey GK.

J Allergy Clin Immunol. 2018 Dec 7. pii: S0091-6749(18)31577-X. doi: 10.1016/j.jaci.2018.09.037.

PMID:30554722

[Associations of urban greenness with asthma and respiratory symptoms in Mexican American children.](#) Eldeirawi K, Kunzweiler C, Zenk S, Finn P, Nyenhuis S, Rosenberg N, Persky V.

Ann Allergy Asthma Immunol. 2018 Dec 14. pii: S1081-1206(18)31529-1. doi: 10.1016/j.anai.2018.12.009.

PMID:30557617

[A computerized decision support tool to implement asthma guidelines for children and adolescents.](#) Kercksmar CM, Sorkness CA, Calatroni A, Gergen PJ, Bloomberg GR, Gruchalla RS,

Kattan M, Liu AH, O'Connor GT, Pongracic JA, Szeffler SJ, Teach SJ, Wildfire JJ, Wood RA, Zoratti EM, Busse WW; NIAID-sponsored Inner-City Asthma Consortium.

J Allergy Clin Immunol. 2018 Dec 5. pii: S0091-6749(18)31724-X. doi: 10.1016/j.jaci.2018.10.060.

PMID:30529451

[Emerging concepts and challenges in implementing the exposome paradigm in allergic diseases and asthma.](#) Agache I, Miller R, Gern JE, Hellings PW, Jutel M, Muraro A, Phipatanakul W, Quirce S, Peden D.

Allergy. 2018 Dec 4. doi: 10.1111/all.13690.

PMID:30515837

Chronic Obstructive Pulmonary Disease (COPD)

[Biomarkers for chronic obstructive pulmonary disease diagnosis and progression: insights, disappointments and promise.](#) Mannino DM.

Curr Opin Pulm Med. 2018 Dec 4. doi: 10.1097/MCP.0000000000000549.

PMID:30520743

[Aspirin Use and Respiratory Morbidity in COPD: A Propensity Score-Matched Analysis in Subpopulations and Intermediate Outcome Measures in COPD Study.](#) Fawzy A, Putcha N,

Aaron CP, Bowler RP, Comellas AP, Cooper CB, Dransfield MT, Han MK, Hoffman EA, Kanner RE, Krishnan JA, Labaki WW, Paine R 3rd, Paulin LM, Peters SP, Wise R, Barr RG, Hansel NN; SPIROMICS Investigators.

Chest. 2018 Dec 26. pii: S0012-3692(18)32887-3. doi: 10.1016/j.chest.2018.11.028.

PMID:30593776

Treatment Costs and Compliance

[Cost-Related Insulin Underuse Among Patients With Diabetes.](#) Herkert D, Vijayakumar P, Luo J, Schwartz JI, Rabin TL, DeFilippo E, Lipska KJ.

JAMA Intern Med. 2018 Dec 3. doi: 10.1001/jamainternmed.2018.5008.

PMID:30508012

Cellular Mechanisms

[Diallyl Disulfide inhibits ethanol-induced pulmonary cell vitamin D and antimicrobial peptide Cathelicidin depletion.](#) Ogunsakin O, Sriyotha P, Burns T, Hottor T, McCaskill M.

Alcohol. 2018 Dec 20. pii: S0741-8329(18)30176-9. doi: 10.1016/j.alcohol.2018.12.003.

PMID:30580017

[The Endothelin-A Receptor Antagonist Zibotentan Induces Damage to the Nasal Olfactory Epithelium Possibly Mediated in Part through Type 2 Innate Lymphoid Cells.](#) Esvelt MA,

Freeman ZT, Pearson AT, Harkema JR, Clines GT, Clines KL, Dyson MC, Hoenerhoff MJ.

Toxicol Pathol. 2018 Dec 30:192623318816295. doi: 10.1177/0192623318816295.

PMID:30595110

[Club Cell Secretory Protein Deficiency Leads to Altered Lung Function.](#)

Zhai J, Insel M, Addison KJ, Stern DA, Pederson W, Dy A, Rojas-Quintero J, Owen CA, Sherrill DL, Morgan W,

Wright AL, Halonen M, Martinez F, Kraft M, Guerra S, Ledford JG.
 Am J Respir Crit Care Med. 2018 Dec 13. doi: 10.1164/rccm.201807-1345OC.
 PMID:30543455

Genetics, Genomics, and Epigenetics

[Epigenome-wide Meta-analysis of DNA Methylation and Childhood Asthma.](#)

Reese SE, Xu CJ, den Dekker HT, Lee MK, Sikdar S, Ruiz-Arenas C, Merid SK, Rezwani FI, Page CM, Ullemar V, Melton PE, Oh SS, Yang IV, Burrows K, Söderhäll C, Jima DD, Gao L, Arathimos R, Küpers LK, Wielscher M, Rzehak P, Lahti J, Laprise C, Madore AM, Ward J, Bennett BD, Wang T, Bell DA; BIOS Consortium, Vonk JM, Håberg SE, Zhao S, Karlsson R, Hollams E, Hu D, Richards AJ, Bergström A, Sharp GC, Felix JF, Bustamante M, Gruziova O, Maguire RL, Gilliland F, Baiz N, Nohr EA, Corpeleijn E, Sebert S, Karmaus W, Grote V, Kajantie E, Magnus MC, Örtqvist AK, Eng C, Liu AH, Kull I, Jaddoe VVW, Sunyer J, Kere J, Hoyo C, Annesi-Maesano I, Arshad SH, Koletzko B, Brunekreef B, Binder EB, Räikkönen K, Reischl E, Holloway JW, Jarvelin MR, Snieder H, Kazmi N, Breton CV, Murphy SK, Pershagen G, Anto JM, Relton CL, Schwartz DA, Burchard EG, Huang RC, Nystad W, Almquist C, Henderson AJ, Melén E, Duijts L, Koppelman GH, London SJ.
 J Allergy Clin Immunol. 2018 Dec 20. pii: S0091-6749(18)32788-X. doi: 10.1016/j.jaci.2018.11.043.

PMID:30579849

[DNA methylation in nasal epithelium, atopy, and atopic asthma in children: a genome-wide study.](#)

Forno E, Wang T, Qi C, Yan Q, Xu CJ, Boutaoui N, Han YY, Weeks DE, Jiang Y, Rosser F, Vonk JM, Brouwer S, Acosta-Perez E, Colón-Semidey A, Alvarez M, Canino G, Koppelman GH, Chen W, Celedón JC.

Lancet Respir Med. 2018 Dec 21. pii: S2213-2600(18)30466-1. doi: 10.1016/S2213-2600(18)30466-1.

PMID:30584054

[Systematic analyses of regulatory variants in DNase I hypersensitive sites identified two novel lung cancer susceptibility loci.](#)

Dai J, Li Z, Amos CI, Hung RJ, Tardon A, Andrew A, Chen C, Christiani DC, Albanes D, van der Heijden EHF, Duell E, Rennert G, James MD, Yuan JM, Field JK, Jonas M, Grankvist K, Le Marchand L, Teare MD, Schabath MB, Aldrich MC, Tsao MS, Lazarus P, Stephen L, Bojesen SE, Susanne A, Wu X, Haugen A, Vladimir J, Johansson M, Yonathan B, Fernandez-Somoano A, Kiemeny LA, Davies M, Zienoldiny S, Hu Z, Shen H.

Carcinogenesis. 2018 Dec 24. doi: 10.1093/carcin/bgy187.

PMID:30590402

Interstitial Lung Disease

[Increased Airway Wall Thickness in Interstitial Lung Abnormalities and Idiopathic](#)

[Pulmonary Fibrosis.](#) Miller ER, Putman RK, Diaz AA, Xu H, San José Estépar R, Araki T, Nishino M, Poli de Frías S, Hida T, Ross J, Coxson H, Dupuis J, O'Connor GT, Silverman EK, Rosas IO, Hatabu H, Washko G, Hunninghake GM; Evaluation of COPD Longitudinally to Identify Predictive Surrogate Endpoints (ECLIPSE) and COPD Gene investigators.

Ann Am Thorac Soc. 2018 Dec 13. doi: 10.1513/AnnalsATS.201806-424OC.

PMID:30543456

[Role of Antigen Type in Survival in Chronic Hypersensitivity Pneumonitis.](#)

Adams TN, Newton CA, Glazer CS.

Lung. 2018 Dec 14. doi: 10.1007/s00408-018-0187-6.

PMID:30552500

Methods, Diagnostics, and Biomarkers

[From nodes to networks: How methods for defining nodes influence inferences regarding network interactions.](#) Falco D, Chowdury A, Rosenberg DR, Diwadkar VA, Bressler SL. Hum Brain Mapp. 2018 Dec 7. doi: 10.1002/hbm.24459.

PMID:30536968

Occupational Exposures, Health, and Mechanisms

[The Evolution of Agricultural Health and Safety in the United States.](#)

Schenker MB.

J Agromedicine. 2018 Dec 26:1-3. doi: 10.1080/1059924X.2018.1548400. [Epub ahead of print] No abstract available.

PMID:30587092

[Post-1971 Era Uranium Workers in New Mexico Have Significant Lung Disease Burden.](#)

Assad N, Wigh S, Kocher E, Shore X, Myers O, Moreno M, Karr R, Armstrong E, Cook LS, Sood A. Ann Am Thorac Soc. 2018 Dec 10. doi: 10.1513/AnnalsATS.201805-309RL.

PMID:30525911

Cardiovascular Disease

[Population Prevalence and Correlates of Prolonged QT Interval: Cross-Sectional, Population-Based Study From Rural Uganda.](#) Magodoro IM, Albano AJ, Muthalaly R, Koplan B, North CM, Vořechovská D, Downey J, Kraemer J, Vaglio M, Badilini F, Kakuhi B, Tsai AC, Siedner MJ.

Glob Heart. 2018 Dec 21. pii: S2211-8160(18)30082-6. doi: 10.1016/j.gheart.2018.11.002.

PMID:30584028

Complementary and Integrative Health

[Interdisciplinary Relationship Models for Complementary and Integrative Health: Perspectives of Chinese Medicine Practitioners in the United States.](#)

Anderson BJ, Jurawanichkul S, Kligler BE, Marantz PR, Evans R.

J Altern Complement Med. 2018 Dec 5. doi: 10.1089/acm.2018.0268.

PMID:30523704

Diet

[Hourly and daily intake patterns among U.S. caffeinated beverage consumers based on the National Health and Nutrition Examination Survey \(NHANES, 2013-2016\).](#) Benson SM, Unice KM, Glynn ME.

Food Chem Toxicol. 2018 Dec 30;125:271-278. doi: 10.1016/j.fct.2018.12.053.

PMID:30602125

[Regional and traffic-related air pollutants are associated with higher consumption of fast food and trans fat among adolescents.](#) Chen Z, Herting MM, Chatzi L, Belcher BR, Alderete TL, McConnell R, Gilliland FD.

Am J Clin Nutr. 2018 Dec 29. doi: 10.1093/ajcn/nqy232.

PMID:30596809

Cancer

[Natural history and factors associated with overall survival in stage IV ALK rearranged non-small-cell lung cancer.](#) Pacheco JM, Gao D, Smith D, Purcell WT, Hancock M, Bunn PA, Robin TP, Liu AK, Karam S, Gaspar LE, Kavanagh BD, Rusthoven CG, Aisner DL, Doebele RC, Camidge DR.

J Thorac Oncol. 2018 Dec 29. pii: S1556-0864(18)33533-0. doi: 10.1016/j.jtho.2018.12.014.

PMID:30599201

[Advanced pancreatic cancer clinical trials: The continued underrepresentation of older patients.](#) White MN, Dotan E, Catalano PJ, Cardin DB, Berlin JD.

J Geriatr Oncol. 2018 Dec 17. pii: S1879-4068(18)30145-0. doi: 10.1016/j.jgo.2018.11.001.

PMID:30573201

Terrorism and Inhalational Disasters Section Updates



TID at ATS 2019 Dallas: Save the dates!

TID thanks the EOPH program committee for selecting abstracts by TID members for a Mini-Symposium at the upcoming ATS International Conference in Dallas. Please join us for exciting talks and livid discussions! Also, please note the day and time for the TID membership meeting.

1. Mini-Symposium

A16 - CHEMICAL THREATS AND INJURY: MECHANISMS AND TREATMENT

Sunday, May 19, 2019, 9:15 AM - 11:15 AM

Chairs: Sven-Eric Jordt, Shama Ahmad, Carl White

Location: please refer to the future program announcement

2. TID Membership meeting

Tuesday, May 21, 2019, 4:30 PM – 6:30 PM

Location: please refer to the future program announcement

TID News

TID Chair Sven-Eric Jordt receives Leading Edge in Basic Science Award by the Society of Toxicology (SOT)



To recognize the importance to pharmacology and toxicology of his contributions to basic science, Dr. Sven-Eric Jordt, PhD, current chair of TID, has been awarded the 2019 SOT Leading Edge in Basic Science Award. Congratulations!
 Source: *Society of Toxicology* article (January 7, 2019)

<http://www.toxicology.org/awards/sot/recipients.asp>

Recent Publications Relevant to the TID Section

[Impaired Tumor-Necrosis-Factor- \$\alpha\$ -driven Dendritic Cell Activation Limits Lipopolysaccharide-Induced Protection from Allergic Inflammation in Infants.](#)

Bachus H, Kaur K, Papillion AM, Marquez-Lago TT, Yu Z, Ballesteros-Tato A, Matalon S, León B. *Immunity*. 2019 Jan 15;50(1):225-240.e4. doi: 10.1016/j.immuni.2018.11.012. Epub 2019 Jan 8. PMID:30635238

[Population Health Adaptation Approaches to the Increasing Severity and Frequency of Weather-Related Disasters Resulting From our Changing Climate: A Literature Review and Application to Charleston, South Carolina.](#)

Runkle J, Svendsen ER, Hamann M, Kwok RK, Pearce J. *Curr Environ Health Rep*. 2018 Dec;5(4):439-452. doi: 10.1007/s40572-018-0223-y. Review. PMID:30406894

[Inhibition of chlorine-induced airway fibrosis by budesonide.](#)

Musah S, Chen J, Schlueter C, Humphrey DM Jr, Stocke K, Hoyle MI, Hoyle GW. *Toxicol Appl Pharmacol*. 2019 Jan 15;363:11-21. doi: 10.1016/j.taap.2018.08.024. Epub 2018 Sep 3. PMID:30189237

To include your publications, news articles, or presentations pertinent to TID section in the future EOPH newsletters, please email your content to Satya Achanta, DVM, PhD (satya.achanta@duke.edu), Web Director of TID section.

Wildfire Workshop Scheduled for the 2019 ATS International Conference in Dallas



The frequency and severity of wildfires are increasing in North America and around the world. What are the pulmonary effects of wildfires on individuals, communities, and heavily exposed occupational groups? How should clinicians and the public health community respond to best protect respiratory health?

Join us for a groundbreaking workshop on the respiratory health effects of wildfires at the 2019 ATS International Conference! A diverse and transdisciplinary group of professionals representing key stakeholders will explore the current state of wildfire health science. We will hear the wildland firefighter perspective, with a focus on fire exposure assessment and worker health effects. We will learn about the specific impact of fire fuels (grasslands, forests, agricultural and prescribed burning) and the effect of

climate change on fire risk. We will explore the cardiopulmonary responses to wildfires and learn about surveillance modeling, risk assessment, and early warning strategies for individuals and communities. The workshop will end with a panel of regional policy makers discussing how to translate these findings into effective public policy to improve individual and public health.

Looking forward to collaborating with you in Dallas!

ATS Environmental Health Policy Committee has a new Twitter account!

The ATS Environmental Health Policy Committee has a new Twitter Account: ATS Environmental Health Policy ([@AtsHealth](https://twitter.com/AtsHealth)). The Committee created the account to foster communication between the committee and ATS members, with a special focus on EOPH. The account will highlight committee activities, with specific “calls to action” for community engagement on significant and timely issues. The committee looks forward to engaging with you in the digital world!

In The News

Last month, the Environmental Protection Agency’s Clean Air Science Advisory committee (CASAC) met in Washington DC. In leading up to this meeting, *Science* published a Q&A session with Dr. Chris Frey of North Carolina State University in Raleigh, who has served and/or chaired this committee since 2007. Please take the time to consider the commentary, as well as the important role that we, as environmental scientists, have in our collective response to the issues raised by Dr. Frey and others leading up to, and following the December 12-13, 2018 meeting. The article can be found [HERE](#).

Interesting Clinical Cases?

The web committee is currently calling for “Quick Hit” clinical cases, which will be posted on the website and highlighted in this newsletter. This is an excellent peer-reviewed writing opportunity for trainees. Submit clinical cases to tara.nordgren@medsch.ucr.edu.