

THE ASSEMBLY ON

Environmental, Occupational, and Population Health

NEWSLETTER



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**Volume 7 | Issue 1
January 2021**

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Dear EOPH Members,

We hope everyone is staying safe and healthy as we continue to navigate and respond to the COVID-19 pandemic.

We have also included some resources to help everyone stay informed as to the current status of the pandemic.

Also included in this **January 2021** newsletter are some of our members' recent and "epub ahead of print" articles.

If you have a recent publication or other items (available jobs, lectures/seminars) that you would like to share in the upcoming newsletter, please send the title and citation link to sophia.kwon@nyulangone.org and TID Section relevant postings to satya.achanta@duke.edu.

Are you interested in getting more involved with ATS and the EOPH assembly? Register [HERE](#) to indicate your interest!

Sincerely,

Your EOPH and TID Web Editorial Committees





Recent Publications

This section highlights some of our assembly members' exciting research that was recently "e-published" or were submitted for inclusion in this newsletter. It is possible that our search may miss your best work, so please send your recent publications to Sophia.Kwon@nyulangone.org.

SARS-CoV-2 / COVID-19

[Covid-19 as an occupational disease.](#)

Carlsten C, Gulati M, Hines S, Rose C, Scott K, Tarlo S, Torén K, Sood A, de la Hoz RE. *Am J Ind Med.* 2021 Jan 24. doi: 10.1002/ajim.23222. Epub ahead of print. PMID: 33491195.

[Increased disinfectant use among adults with asthma in the era of COVID-19.](#)

Eldeirawi K, Huntington-Moskos L, Nyenhuis SM, Polivka B. *J Allergy Clin Immunol Pract.* 2020 Dec 29:S2213-2198(20)31402-1. doi: 10.1016/j.jaip.2020.12.038. Online ahead of print. PMID: 33385592 No abstract available.

[Migrant workers, essential work, and COVID-19.](#)

Reid A, Rhonda-Perez E, Schenker MB. *Am J Ind Med.* 2021 Feb;64(2):73-77. doi: 10.1002/ajim.23209. Epub 2020 Dec 23. PMID: 33355943

[Improving Testing for COVID-19 for the Rural Southwestern American Indian Tribes.](#)

Chhabra A, Sood V, Sood V, Sood A. *Southwest J Pulm Crit Care.* 2020;20(5):175-178. doi: 10.13175/swjpc037-20. PMID: 33344039 **Free PMC article.** No abstract available.

[Wildland firefighter exposure to smoke and COVID-19: A new risk on the fire line.](#)

Navarro KM, Clark KA, Hardt DJ, Reid CE, Lahm PW, Domitrovich JW, Butler CR, Balmes JR. *Sci Total Environ.* 2021 Mar 15;760:144296. doi: 10.1016/j.scitotenv.2020.144296. Epub 2020 Dec 11. PMID: 33341613 Review.

[Speed Versus Efficacy: Quantifying Potential Tradeoffs in COVID-19 Vaccine Deployment.](#)

Paltiel AD, Zheng A, Schwartz JL. *Ann Intern Med.* 2021 Jan 5:M20-7866. doi: 10.7326/M20-7866. Online ahead of print. PMID: 33395345 **Free PMC article.** No abstract available.

[Profiling of immune dysfunction in COVID-19 patients allows early prediction of disease progression.](#)

Rendeiro AF, Casano J, Vorkas CK, Singh H, Morales A, DeSimone RA, Ellsworth GB, Soave R, Kapadia SN, Saito K, Brown CD, Hsu J, Kyriakides C, Chiu S, Cappelli LV, Cacciapuoti MT, Tam W, Galluzzi L, Simonson PD, Elemento O, Salvatore M, Inghirami G. *Life Sci Alliance.* 2020 Dec 24;4(2):e202000955. doi: 10.26508/lsa.202000955. Print 2021 Feb. PMID: 33361110 **Free PMC article.**

[Pneumothorax rate in intubated patients with COVID-19.](#)

Capaccione KM, D'souza B, Leb J, Luk L, Duong J, Tsai WY, Navot B, Dumeer S, Mohammed A, Salvatore MM. *Acute Crit Care.* 2020 Dec 21. doi: 10.4266/acc.2020.00689. Online ahead of print. PMID: 33342201 No abstract available.

[Guillain-Barre Syndrome and COVID-19: A case report.](#)



Bueso T, Montalvan V, Lee J, Gomez J, Ball S, Shoustari A, Julayanont P, **Jumper C.** Clin Neurol Neurosurg. 2021 Jan;200:106413. doi: 10.1016/j.clineuro.2020.106413. Epub 2020 Dec 5. PMID: 33338825 **Free PMC article.**

Utility of Hypertonic Saline and Diazepam in COVID-19-Related Hydroxychloroquine Toxicity.

Mahan KM, Hayes BD, **North CM**, Becker JS, Fenves AZ, Hyppolite G, Khosrowjerdi S, Sinden D, Stearns DA. J Emerg Med. 2020 Oct 29;S0736-4679(20)31157-4. doi: 10.1016/j.jemermed.2020.10.048. Online ahead of print. PMID: 33353811 **Free PMC article.**

Asthma and Allergy

A randomized, open-label, pragmatic study to assess reliever-triggered inhaled corticosteroid in African American/Black and Hispanic/Latinx adults with asthma: Design and methods of the PREPARE trial.

Israel E, Cardet JC, Carroll JK, Fuhlbrigge AL, Pace WD, Maher NE, She L, Rockhold FW, Fagan M, Forth VE, Hernandez PA, Manning BK, Rodriguez-Louis J, Shields JB, Coyne-Beasley T, Kaplan BM, Rand CS, Morales-Cosme W, Wechsler ME, Wisnivesky JP, White M, Yawn BP, McKee MD, Busse PJ, Kaelber DC, Nazario S, Hernandez ML, Apter AJ, Chang KL, Pinto-Plata V, Stranges PM, Hurley LP, Trevor J, Casale TB, Chupp G, Riley IL, Shenoy K, Pasarica M, Calderon-Candelario RA, Tapp H, Baydur A. Contemp Clin Trials. 2020 Dec 11;101:106246. doi: 10.1016/j.cct.2020.106246. Online ahead of print. PMID: 33316456 **Free article.**

NLRP1 variant M1184V decreases inflammasome activation in the context of DPP9 inhibition and asthma severity.

Moecking J, Laohamonthonkul P, Chalker K, White MJ, Harapas CR, Yu CH, Davidson S, Schaale KH, Hu D, Eng C, Huntsman S, Calleja DJ, Horvat JC, Hansbro PM, O'Donoghue RJJ, Ting JP, Burchard EG, Geyer M, Gerlic M, Masters SL. J Allergy Clin Immunol. 2020 Dec 27;S0091-6749(20)32426-X. doi: 10.1016/j.jaci.2020.12.636. Online ahead of print. PMID: 33378691

COPD, Chronic Bronchitis

Pseudomonas aeruginosa associated with severity of non-cystic fibrosis bronchiectasis measured by the modified bronchiectasis severity score (BSI) and the FACED: The US bronchiectasis and NTM Research Registry (BRR) study.

Choate R, Aksamit TR, **Mannino D**, Addrizzo-Harris D, Barker A, Basavaraj A, Daley CL, Daniels MLA, Eden E, DiMango A, Fennelly K, Griffith DE, Johnson MM, Knowles MR, McShane PJ, Metersky ML, Noone PG, O'Donnell AE, Olivier KN, Salathe MA, Schmid A, Thomashow B, Tino G, Winthrop KL, Stone G. Respir Med. 2020 Dec 24;177:106285. doi: 10.1016/j.rmed.2020.106285. Online ahead of print. PMID: 33401148

Occupational Injuries and Environmental Exposures

Ventilatory responses to constant load exercise following the inhalation of a short-acting β_2 -agonist in a laboratory-controlled diesel exhaust exposure study in individuals with exercise-induced bronchoconstriction.

Koch S, Welch JF, Tran R, Ramsook AH, Hung A, **Carlsten C**, Guenette JA, Koehle MS. Environ Int. 2021 Jan;146:106182. doi: 10.1016/j.envint.2020.106182. Epub 2020 Dec 4. PMID: 33395924



[Cardiovascular health impacts of wildfire smoke exposure.](#) Chen H, **Samet JM, Bromberg PA**, Tong H. *Part Fibre Toxicol.* 2021 Jan 7;18(1):2. doi: 10.1186/s12989-020-00394-8. PMID: 33413506 **Free PMC article.** Review.

[Respiratory Effects of Sedentary Ozone Exposure at the 70 ppb National Ambient Air Quality Standard: A Randomized Clinical Trial.](#)

Hernandez ML, Ivins S, Chason K, Burbank AJ, Rebuli ME, Kobernick A, Schworer SA, Zhou H, Alexis NE, **Peden DB.** *Am J Respir Crit Care Med.* 2021 Jan 5. doi: 10.1164/rccm.202006-2597LE. Online ahead of print. PMID: 33400891 No abstract available.

[A 2019 Update on Occupational Lung Diseases: A Narrative Review.](#)

Vlahovich KP, **Sood A.** *Pulm Ther.* 2020 Dec 31. doi: 10.1007/s41030-020-00143-4. Online ahead of print. PMID: 33385174 Review.

[Paraquat Inhalation, a Translationally Relevant Route of Exposure: Disposition to the Brain and Male-Specific Olfactory Impairment in Mice.](#)

Anderson T, Merrill AK, Eckard ML, Marvin E, Conrad K, Welle K, **Oberdörster G**, Sobolewski M, Cory-Slechta DA. *Toxicol Sci.* 2020 Dec 29:kfaa183. doi: 10.1093/toxsci/kfaa183. Online ahead of print. PMID: 33372994

[Reported Neighborhood Traffic and the Odds of Asthma/Asthma-Like Symptoms: A Cross-Sectional Analysis of a Multi-Racial Cohort of Children.](#)

Commodore S, Ferguson PL, Neelon B, Newman R, Grobman W, Tita A, Pearce J, Bloom MS, **Svendsen E**, Roberts J, Skupski D, Sciscione A, Palomares K, Miller R, Wapner R, Vena JE, Hunt KJ. *Int J Environ Res Public Health.* 2020 Dec 31;18(1):243. doi: 10.3390/ijerph18010243. PMID: 33396261 **Free PMC article.**

[Outdoor air pollution exposure and inter-relation of global cognitive performance and emotional distress in older women.](#)

Petkus AJ, Wang X, Beavers DP, Chui HC, Espeland MA, Gatz M, Gruenewald T, **Kaufman JD**, Manson JE, Resnick SM, Stewart JD, Wellenius GA, Whitsel EA, Widaman K, Younan D, Chen JC. *Environ Pollut.* 2020 Dec 14;271:116282. doi: 10.1016/j.envpol.2020.116282. Online ahead of print. PMID: 33385889

[Residential radon exposure and hypertensive disorders of pregnancy in Massachusetts, USA: A cohort study.](#)

Papatheodorou S, Yao W, Vieira CLZ, Li L, Wylie BJ, **Schwartz J**, Koutrakis P. *Environ Int.* 2021 Jan;146:106285. doi: 10.1016/j.envint.2020.106285. Epub 2020 Dec 9. PMID: 33395935

[A National Difference in Differences Analysis of the Effect of PM_{2.5} on Annual Death Rates.](#)

Schwartz J, Wei Y, Yitshak-Sade M, Di Q, Dominici F, Zanobetti A. *Environ Res.* 2020 Dec 29:110649. doi: 10.1016/j.envres.2020.110649. Online ahead of print. PMID: 33385394

[Environmental risk factors associated with pulmonary isolation of nontuberculous mycobacteria, a population-based study in the southeastern United States.](#)



DeFlorio-Barker S, Egorov A, Smith GS, Murphy MS, Stout JE, **Ghio AJ**, Hudgens EE, Messier KP, Maillard JM, Hilborn ED. *Sci Total Environ.* 2020 Dec 18;763:144552. doi: 10.1016/j.scitotenv.2020.144552. Online ahead of print. PMID: 33383509

Pulmonary Hypertension and Cardiopulmonary Disease

[The Pursuit of Risk Assessment and Stratification Tools in Pulmonary Arterial Hypertension: Have We Seen the Lite?](#)

Ford HJ, LeVarge B. *Chest.* 2021 Jan;159(1):14-16. doi: 10.1016/j.chest.2020.10.026. PMID: 33422195

Academic Medicine

[Mentorship initiatives in radiation oncology: A scoping review of the literature.](#)

Marsiglio JA, **Rosenberg DM**, Rooney MK, Goodman CR, Gillespie EF, Hirsch AE, Holliday EB, Kimple RJ, Thomas CR Jr, Golden DW. *Int J Radiat Oncol Biol Phys.* 2021 Jan 4:S0360-3016(20)34745-3. doi: 10.1016/j.ijrobp.2020.12.049. Online ahead of print. PMID: 33412265

[Factors Related to Faculty Retention in a School of Medicine: A Time to Event Analysis.](#)

Myers O, Greenberg N, Wilson B, **Sood A**. *Chron Mentor Coach.* 2020 Dec;1(13):334-340. PMID: 33313388 **Free PMC article.**

[Multiple breath washout test data for healthy controls.](#)

Zell-Baran LM, Krefft SD, Moore CM, Wolff J, Meehan R, **Rose CS**. *Data Brief.* 2020 Dec 10;34:106641. doi: 10.1016/j.dib.2020.106641. eCollection 2021 Feb. PMID: 33365370

[A generic fluticasone propionate and salmeterol dry powder inhaler: Evidence of usability, function, and robustness.](#)

Tashkin DP, Koltun A, Wallace R. *Allergy Asthma Proc.* 2021 Jan 21;42(1):30-35. doi: 10.2500/aap.2021.42.200112. Epub 2020 Dec 21. PMID: 33353582

Critical Care

[Development and Prospective Validation of a Deep Learning Algorithm for Predicting Need for Mechanical Ventilation.](#)

Shashikumar SP, Wardi G, Paul P, Carlile M, Brenner LN, Hibbert KA, **North CM**, Mukerji SS, Robbins GK, Shao YP, Westover MB, Nemati S, Malhotra A. *Chest.* 2020 Dec 17:S0012-3692(20)35454-4. doi: 10.1016/j.chest.2020.12.009. Online ahead of print. PMID: 33345948

Neonatal and Pediatric Disease

[Prenatal metal mixtures and child blood pressure in the Rhea mother-child cohort in Greece.](#)

Howe CG, Margetaki K, Vafeiadi M, Roumeliotaki T, Karachaliou M, Kogevinas M, McConnell R, **Eckel SP**, Conti DV, Kippler M, Farzan SF, Chatzi L. *Environ Health.* 2021 Jan 6;20(1):1. doi: 10.1186/s12940-020-00685-9. PMID: 33407552 **Free PMC article.**

[Focal epilepsy features in a child with Congenital Zika Syndrome.](#)

Jayatilake P, Oyegunle V, Waechter R, Landon B, Fernandes M, Cudjoe N, **Evans R**, Noël T, Macpherson C, Donald T, Abdelbaki SG, Mandalaneni K, Dlugos D, Chari G, Patel AA, Grossi-



Soyster EN, Desiree LaBeaud A, Blackmon K. *Epilepsy Behav Rep.* 2020 Nov 25;14:100411. doi: 10.1016/j.ebr.2020.100411. eCollection 2020. PMID: 33313503 **Free PMC article.**

[Enhanced Neutralizing Antibody Responses to Rhinovirus C and Age-Dependent Patterns of Infection.](#)

Choi T, Devries M, Bacharier L, Busse W, Camargo CA Jr, Cohen R, Demuri GP, Evans MD, Fitzpatrick AM, Gergen PJ, Grindle K, Gruchalla R, Hartert T, Hasegawa K, Khurana Hershey GK, Holt P, Homil K, Jartti T, Kattan M, Kercksmar C, Kim H, Laing IA, LeBeau P, Lee KE, Le Souëf PN, **Liu A**, Mauger DT, Ober C, Pappas T, Patel SJ, Phipatanakul W, Pongracic J, Seroogy C, Sly PD, Tisler C, Wald ER, Wood R, Gangnon R, Jackson DJ, Lemanske RF Jr, Gern JE, Bochkov YA; program collaborators for Environmental influences on Child Health Outcomes. *Am J Respir Crit Care Med.* 2020 Dec 24. doi: 10.1164/rccm.202010-3753OC. Online ahead of print. PMID: 33357024

Climate Change, Public Health and Policy

[Residential surrounding greenness and self-reported symptoms of anxiety and depression in adolescents.](#)

Hartley K, Perazzo J, Brokamp C, Gillespie GL, Cecil KM, LeMasters G, Yolton K, **Ryan P.** *Environ Res.* 2020 Dec 17;194:110628. doi: 10.1016/j.envres.2020.110628. Online ahead of print. PMID: 33345894

[Inferential challenges when assessing racial/ethnic health disparities in environmental research.](#)

Benmarhnia T, Hajat A, **Kaufman JS.** *Environ Health.* 2021 Jan 12;20(1):7. doi: 10.1186/s12940-020-00689-5. PMID: 33430882 **Free PMC article.**

Cigarettes, E-cigs, and other Tobacco or Cannabis Smoke Exposures

[Electronic-Cigarette Use Alters Nasal Mucosal Immune Response to Live-attenuated Influenza Virus. A Clinical Trial.](#)

Rebuli ME, Glista-Baker E, Hoffman JR, Duffney PF, Robinette C, Speen AM, Pawlak EA, Dhingra R, Noah TL, Jaspers I. *Am J Respir Cell Mol Biol.* 2021 Jan;64(1):126-137. doi: 10.1165/rcmb.2020-0164OC. PMID: 33095645; PMCID: PMC7781000.

[Use of E-cigarettes and Other Tobacco Products and Progression to Daily Cigarette Smoking.](#)

Pierce JP, Chen R, Leas EC, **White MM**, Kealey S, Stone MD, Benmarhnia T, Trinidad DR, Strong DR, Messer K. *Pediatrics.* 2021 Jan 11:e2020025122. doi: 10.1542/peds.2020-025122. Online ahead of print. PMID: 33431589

[Epigenetic-smoking interaction reveals histologically heterogeneous effects of TRIM27 DNA methylation on overall survival among early-stage NSCLC patients.](#)

Ji X, Lin L, Shen S, Dong X, Chen C, Li Y, Zhu Y, Huang H, Chen J, Chen X, Wei L, He J, Duan W, **Su L**, Jiang Y, Fan J, Guan J, You D, Shafer A, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Wei Y, Zhang R, Chen F, **Christiani DC.** *Mol Oncol.* 2020 Nov;14(11):2759-2774. doi: 10.1002/1878-0261.12785. Epub 2020 Sep 3. PMID: 33448640

Cancer

[Potentially functional variants of HBEGF and ITPR3 in GnRH signaling pathway genes predict survival of non-small cell lung cancer patients.](#)



Wu Y, Liu Z, Tang D, Liu H, Luo S, Stinchcombe TE, Glass C, **Su L**, Lin L, **Christiani DC**, Wang Q, Wei Q. *Transl Res.* 2021 Jan 2;S1931-5244(20)30320-0. doi: 10.1016/j.trsl.2020.12.009. Online ahead of print. PMID: 33400994

[Circular RNAs in body fluids as cancer biomarkers: the new frontier of liquid biopsies.](#)

Wang S, Zhang K, Tan S, Xin J, Yuan Q, Xu H, Xu X, Liang Q, **Christiani DC**, Wang M, Liu L, Du M. *Mol Cancer.* 2021 Jan 11;20(1):13. doi: 10.1186/s12943-020-01298-z. PMID: 33430880

[NRG1 fusions in breast cancer.](#)

Howarth KD, Mirza T, Cooke SL, Chin SF, Pole JC, Turro E, Eldridge MD, Garcia RM, Rueda OM, Bournsnel C, **Abraham JE**, Caldas C, Edwards PAW. *Breast Cancer Res.* 2021 Jan 7;23(1):3. doi: 10.1186/s13058-020-01377-5. PMID: 33413557 **Free PMC article.**

[The Impact of Biopsy Tool Choice and Rapid On-Site Evaluation on Diagnostic Accuracy for Malignant Lesions in the Prospective: Multicenter NAVIGATE Study.](#)

Gildea TR, Folch EE, Khandhar SJ, Pritchett MA, LeMense GP, Linden PA, Arenberg DA, Rickman OB, Mahajan AK, Singh J, Cicienia J, **Mehta AC**, Lin H, Mattingley JS; NAVIGATE Study Investigators. *J Bronchology Interv Pulmonol.* 2020 Dec 22; Publish Ahead of Print. doi: 10.1097/LBR.0000000000000740. Online ahead of print. PMID: 33369988

[Outdoor light at night and breast cancer incidence in the Danish Nurse Cohort.](#)

Clarke RB, Amini H, James P, von Euler-Chelpin M, Jørgensen JT, **Mehta A**, Cole-Hunter T, Westendorp R, Mortensen LH, Loft S, Brandt J, Hertel O, Ketznel M, Backalarz C, Andersen ZJ, Lim YH. *Environ Res.* 2020 Dec 17;194:110631. doi: 10.1016/j.envres.2020.110631. Online ahead of print. PMID: 33345898

[The oral microbiome and lung cancer risk.](#)

Christiani DC. *Thorax.* 2020 Dec 14;thoraxjnl-2020-216385. doi: 10.1136/thoraxjnl-2020-216385. Online ahead of print. PMID: 33318238 No abstract available.

Sarcoidosis and Interstitial Lung Disease

[Genetic Risk Factors for Idiopathic Pulmonary Fibrosis: Insights into Immunopathogenesis.](#)

Michalski JE, **Schwartz DA.** *J Inflamm Res.* 2021 Jan 5;13:1305-1318. doi: 10.2147/JIR.S280958. eCollection 2020. PMID: 33447070 **Free PMC article.** Review.

[Molecular Markers of Telomere Dysfunction and Senescence are Common Findings in the Usual Interstitial Pneumonia Pattern of Lung Fibrosis.](#)

Lee JS, La J, Aziz S, Dobrinskikh E, Brownell R, Jones KD, Achar-Zadeh N, Green G, Elicker BM, Golden JA, Matthay MA, Kukreja J, **Schwartz DA**, Wolters PJ. *Histopathology.* 2021 Jan 11. doi: 10.1111/his.14334. Online ahead of print. PMID: 33432658

[Predictive Significance of Serum Interferon Inducible Protein Score for Response to Treatment in Systemic Sclerosis Related Interstitial Lung Disease.](#)

Assassi S, Li N, Volkmann ER, Mayes MD, Runger D, Ying J, Roth MD, Hinchcliff M, Khanna D, Frech T, Clements PJ, Furst DE, Goldin J, Bernstein EJ, Castelino FV, Domsic RT, Gordon JK, Hant



FN, Shah AA, Shanmugam VK, Steen VD, Elashoff RM, **Tashkin DP**. *Arthritis Rheumatol*. 2020 Dec 21. doi: 10.1002/art.41627. Online ahead of print. PMID: 33350170

[Haloferax volcanii Immersed Liquid Biofilms Develop Independently of Known Biofilm Machineries and Exhibit Rapid Honeycomb Pattern Formation.](#)

Schiller H, Schulze S, Mutan Z, de Vault C, Runcie C, **Schwartz J**, Rados T, Bisson Filho AW, Pohlschroder M. *mSphere*. 2020 Dec 16;5(6):e00976-20. doi: 10.1128/mSphere.00976-20. PMID: 33328348 **Free PMC article.**

Cellular Mechanisms

[Integrase-Defective Lentiviral Vectors for Delivery of Monoclonal Antibodies against Influenza.](#)

Michellini Z, Minkoff JM, Yang J, Negri D, Cara A, Hanson BJ, **Salvatore M**. *Viruses*. 2020 Dec 17;12(12):1460. doi: 10.3390/v12121460. PMID: 33348840 **Free PMC article.**

[Secretory Cells Dominate Airway CFTR Expression and Function in Human Airway Superficial Epithelia.](#)

Okuda K, Dang H, Kobayashi Y, Carraro G, Nakano S, Chen G, Kato T, Asakura T, Gilmore RC, Morton LC, Lee RE, Mascenik T, Yin WN, Barbosa Cardenas SM, O'Neal YK, Minnick CE, Chua M, Quinney NL, Gentsch M, Anderson CW, **Ghio A**, Matsui H, Nagase T, Ostrowski LE, Grubb BR, Olsen JC, Randell SH, Stripp BR, Tata PR, O'Neal WK, Boucher RC. *Am J Respir Crit Care Med*. 2020 Dec 15. doi: 10.1164/rccm.202008-3198OC. Online ahead of print. PMID: 33321047

[Chemical Adducts of Reactive Flavor Aldehydes Formed in E-Cigarette Liquids Are Cytotoxic and Inhibit Mitochondrial Function in Respiratory Epithelial Cells.](#)

Jabba SV, Diaz AN, Erythropel HC, Zimmerman JB, **Jordt SE**. *Nicotine Tob Res*. 2020 Dec 15;22(Suppl 1):S25-S34. doi: 10.1093/ntr/ntaa185. PMID: 33320255

Extrapulmonary Medicine

[MnTE-2-PyP disrupts Staphylococcus aureus biofilms in a novel fracture model.](#)

Lindsay SE, Lindsay HG, Kallet J, Weaver MR, Curran-Everett D, Crapo JD, **Regan EA**. *J Orthop Res*. 2020 Dec 21. doi: 10.1002/jor.24967. Online ahead of print. PMID: 33347639

[Racial and geographic variation in effects of maternal education and neighborhood-level measures of socioeconomic status on gestational age at birth: Findings from the ECHO cohorts.](#)

Dunlop AL, Essalmi AG, Alvalos L, Breton C, Camargo CA, Cowell WJ, Dabelea D, Dager SR, Duarte C, Elliott A, Fichorova R, Gern J, Hedderson MM, Thepaksorn EH, Huddleston K, Karagas MR, Kleinman K, Leve L, Li X, Li Y, **Litonjua A**, Ludena-Rodriguez Y, Madan JC, Nino JM, McEvoy C, O'Connor TG, Padula AM, Paneth N, Perera F, Sathyanarayana S, Schmidt RJ, Schultz RT, Snowden J, Stanford JB, Trasande L, Volk HE, Wheaton W, Wright RJ, McGrath M; program collaborators for Environmental Influences on Child Health Outcomes. *PLoS One*. 2021 Jan 8;16(1):e0245064. doi: 10.1371/journal.pone.0245064. eCollection 2021. PMID: 33418560

[Pricing Universal Health Care: How Much Would The Use Of Medical Care Rise?](#)

Gaffney A, Himmelstein DU, Woolhandler S, Kahn JG. *Health Aff (Millwood)*. 2021 Jan;40(1):105-112. doi: 10.1377/hlthaff.2020.01715. PMID: 33400569



Updates from Terrorism and Inhalation Disasters (TID) Section

COVID-19 Vaccination Materials

<https://www.thoracic.org/vaccine-resource-center/index.php>

[Join Us for ATS 2021 \(thoracic.org\)](https://www.thoracic.org)

The ATS is moving ahead with ATS 2021, May 14-19 in San Diego.

The 2021 experience will deliver the science, education, and networking that the pulmonary, critical care, and sleep community has come to expect from the ATS International Conference.

ATS COVID-19 Resources

[COVID-19: The ATS Response \(thoracic.org\)](https://www.thoracic.org)

Featured publication of the month

Pauluhn J. Phosgene Inhalation Toxicity: Update on Mechanisms and Mechanism-Based Treatment Strategies. *Toxicology*. 2021 Jan 20:152682. doi: 10.1016/j.tox.2021.152682. Epub ahead of print. PMID: 33484734.

Abstract

Phosgene (carbonyl dichloride) gas is an indispensable high-production-volume chemical intermediate used worldwide in numerous industrial processes. Published evidence of human exposures due to accidents and warfare (World War I) has been reported; however, these reports often lack specificity because of the uncharacterized exposure intensities of phosgene and/or related irritants. These may include liquid or solid congeners of phosgene, including di- and triphosgene and/or the respiratory tract irritant chlorine which are often collectively reported under the umbrella of phosgene exposure without any appreciation of their differences in causing acute lung injury (ALI). Among these irritants, phosgene gas is somewhat unique because of its poor water solubility. This prevents any appreciable retention of the gas in the upper airways and related trigeminal sensations of irritation. By contrast, in the pulmonary compartment, amphiphilic surfactant might scavenge this lipophilic gas. The interaction of phosgene and the surfactant may affect basic physiological

functions controlled by Starling's and Laplace's laws, which can be followed by cardiogenic pulmonary edema. The phenotypic manifestations are dependent on the concentration \times exposure duration ($C \times t$); the higher the $C \times t$ is, the less time that is required for edema to appear. It is hypothesized that this type of edema is caused by cardiovascular and colloid osmotic imbalances to initial neurogenic events but not because of the injury itself. Thus, hemodynamic etiologies appear to cause imbalances in extravasated fluids and solute accumulation in the pulmonary interstitium, which is not drained away by the lymphatic channels of the lung. The most salient associated findings are hemoconcentration and hypoproteinemia. The involved intertwined pathophysiological processes coordinating pulmonary ventilation and cardiopulmonary perfusion under such conditions are complex. Pulmonary arterial catheter measurements on phosgene-exposed dogs provided evidence of 'cor pulmonale', a form of acute right heart failure produced by a sudden increase in resistance to blood flow in the pulmonary circulation about 20 hours postexposure. The objective of this review is to critically analyze evidence from experimental inhalation studies in rats and dogs, and evidence from accidental human exposures to better understand the primary and secondary events causing cardiopulmonary dysfunction and an ensuing life-threatening lung edema. Mechanism-based diagnostic and therapeutic approaches are also considered for this form of cardiogenic edema.

Congratulations to Dr. Pauluhn!!!

Funding opportunities

A banner for the '2021 ATS Health Equality Fellowship'. It features a blue background with a white box containing the text 'NOW OPEN!' in blue. Below this, the text '2021 ATS Health Equality Fellowship' is written in large blue letters, with 'DEADLINE: Friday, March 12, 2021 @ 11:59 pm ET' in smaller blue letters below it. The banner is decorated with silhouettes of hands of various colors (brown, tan, black) on the left and right sides.

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Relevant publications for TID Section

Liu C, Reese R, Vu S, Rougé L, Shields SD, Kakiuchi-Kiyota S, Chen H, Johnson K, Shi YP, Chernov-Rogan T, Greiner DMZ, Kohli PB, Hackos D, Brillantes B, Tam C, Li T, Wang J, Safina B, Magnuson S, Volgraf M, Payandeh J, Zheng J, Rohou A, Chen J. A Non-covalent Ligand Reveals Biased Agonism of

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Fu YL, Chong YY, Li H, Feng W, Song QH. Sensitive and visual detection of phosgene by a TICT-based BODIPY dye with 8-(o-hydroxy)aniline as the active site. *Chemistry*. 2021 Jan 5. doi: 10.1002/chem.202005169. Epub ahead of print. PMID: 33400318.

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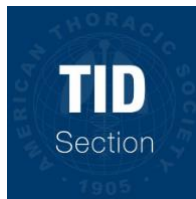
Harlow AF, Fetterman JL, Ross CS, Robertson RM, Bhatnagar A, Benjamin EJ, Stokes AC. Association of device type, flavours and vaping behaviour with tobacco product transitions among adult electronic cigarette users in the USA. *Tob Control*. 2021 Jan 21:tobaccocontrol-2020-055999. doi: 10.1136/tobaccocontrol-2020-055999. Epub ahead of print. PMID: 33479031.

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TID section is on  **twitter**
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TID section is soliciting ideas for putting together podcasts, webinars, and journal clubs. Please contact Satya Achanta, DVM, PhD, DABT (satya.achanta@duke.edu), Web Director of TID section, if you are interested to lead any of these activities. Also, please email your publications, news articles, or presentations pertinent to TID section to include in the future EOPH newsletters.



The **EOPH Apprenticeship Program** will take on a web apprentice this year. Please see information and application at the following link.

link: <https://www.thoracic.org/members/assemblies/assemblies/eoph/apprenticeship-program/index.php>

Potential Faculty Positions

Please email us with any additional positions you would like included

COVID-19 RESOURCES

ATS Resources

The ATS Clinical Problems (CP) Assembly has a closed, internal Facebook page hosted by MeiLan Han that is being consistently updated with COVID-19 updates/resources for rapid dissemination among members. All ATS members may have access to this page—you will need to enter your ATS member number to join. The link to the Facebook page is [HERE](#). A major goal of this resource is to also add to knowledge by posting experiences with clinical care associated with COVID-19, as well as more general news regarding coronavirus.

Other Resources

The New York Times has made their very extensive, frequently updated, coronavirus coverage freely available without a subscription. You can access this information by navigating from the [New York Times homepage](#), or click the link [HERE](#) to go directly to the resources.

The Center for Systems Science and Engineering at Johns Hopkins University is providing a map of the global spread of COVID-19 that updates regularly. You can access the site [HERE](#).

The ATS COVID-19 Resource Center provides free information to help healthcare providers, patients and their families manage a host of issues related to the COVID-19 pandemic. Content will be updated regularly.

If you have suggestions for resources or ideas for how ATS can best support the pulmonary, critical care, and sleep medicine community during this challenging time, please contact: covid19info@thoracic.org.

Which can be accessed [HERE](#)

Advice for Pulmonary Function Testing

Very important PFT advice that you might have missed was issued late last month by members of the ATS Proficiency Standards for Pulmonary Function Testing Committee, called "*Advice Regarding COVID 19 For Pulmonary Function Laboratories.*" Its link is here: [HERE](#) - you have to scroll to the bottom of the page.



<https://www.thoracic.org/professionals/clinical-resources/disease-related-resources/pulmonary-function-laboratories.php>

Based on ACOEM's and CAOHC's recommendations about postponing non-essential routine spirometry and hearing tests, OSHA issued an enforcement guidance on postponing various testing and training activities during the pandemic. News release here: <https://www.osha.gov/news/newsreleases/national/04162020-0>

The PhD, Basic and Translational Science Working Group within the American Thoracic Society is developing a **database of scientists** interested in giving virtual seminars during the ongoing COVID-19 pandemic. Our goal is to promote ongoing scientific networking for PhD and basic scientists with an emphasis on facilitating seminars by early career faculty. We would like to invite you to add yourself or share with / invite your colleagues to the database below. The compiled list will be distributed to Division Chiefs, T32 institutional training grant directors, and ATS Assemblies.

Thank you in advance for participation. If you have any questions, please contact Ciara Shaver (ciara.shaver@vumc.org), Alessandra Adami (aadami@uri.edu), or Bethany Moore (bmoore@med.umich.edu).

Volunteer using this link:

https://docs.google.com/spreadsheets/d/11uM1q0g6FciZpOqeI9xHCzeWdTDppvOpxTQ5-o_sDz4/edit?usp=sharing

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