

THE ASSEMBLY ON

Environmental, Occupational, and Population Health

NEWSLETTER



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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 **February 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 SM, Torén K, Sood A, de la Hoz RE. *Am J Ind Med.* 2021 Jan 24. doi: 10.1002/ajim.23222. Online ahead of print. PMID: 33491195 Review.

[Letter to the Editor: Initiation of a Survey of Healthcare Worker Distress and Moral Injury at the Onset of the COVID-19 Surge.](#)

Hines, SE, Chin, K, Levine, A, Wickwire, E. *American Journal of Industrial Medicine*, 2020:63:830-833. doi: 10.1002/ajim.23157. Epub 2020 Jul 16

[COVID-19: A Time to Reinvest in Our Scientists.](#)

Burden M, Flores SC, **Schwartz DA**. *Am J Respir Crit Care Med.* 2021 Feb 17. doi: 10.1164/rccm.202012-4497LE. Online ahead of print. PMID: 33596390 No abstract available.

[SARS-CoV-2 tropism, entry, replication, and propagation: Considerations for drug discovery and development.](#)

Murgolo N, Therien AG, Howell B, Klein D, Koeplinger K, Lieberman LA, Adam GC, **Flynn J**, McKenna P, Swaminathan G, Hazuda DJ, Olsen DB. *PLoS Pathog.* 2021 Feb 17;17(2):e1009225. doi: 10.1371/journal.ppat.1009225. eCollection 2021 Feb. PMID: 33596266 **Free article.** Review.

[Strengthening Digital Health Technology Capacity in Navajo Communities to Help Counter the COVID-19 Pandemic.](#)

Begay M, Kakol M, **Sood A**, Upson D. *Ann Am Thorac Soc.* 2021 Feb 12. doi: 10.1513/AnnalsATS.202009-1136PS. Online ahead of print. PMID: 33577743 No abstract available.

[ALLERGY AND CORONAVIRUS DISEASE \(COVID-19\) INTERNATIONAL SURVEY: REAL-LIFE DATA FROM THE ALLERGY COMMUNITY DURING THE PANDEMIC.](#)

Tanno LK, Demoly P, Martin B, Berstein J, Morais-Almeida M, Levin M, Fiocchi A, Sanchez-Borges M, Caraballo LR, Wong G, Ortega-Martell JA, Rouadi P, Yanez A, Wang LL, **Peden DB**, Chikhadze M, Gonzalez-Diaz SN, Fontaine JF, Sublett J, Chang YS, Passalacqua G, Ansotegui I, Ebisawa M, Senna G, Caminati M. *World Allergy Organ J.* 2021 Jan 31:100515. doi: 10.1016/j.waojou.2021.100515. Online ahead of print. PMID: 33552380 **Free PMC article.**

[Environment and the COVID-19 pandemic.](#)



Sunyer J, Dadvand P, Foraster M, **Gilliland F**, Nawrot T. Environ Res. 2021 Jan 29;195:110819. doi: 10.1016/j.envres.2021.110819. Online ahead of print. PMID: 33524330 **Free PMC article**. No abstract available

[Pathophysiology and Imaging Findings of COVID-19 Infection: An Organ-system Based Review.](#)
Capaccione KM, Yang H, West E, Patel H, Ma H, Patel S, Fruauff A, Loeb G, Maddocks A, Borowski A, Lala S, Nguyen P, Lignelli A, D'souza B, Desperito E, Ruzal-Shapiro C, **Salvatore MM**. Acad Radiol. 2021 Feb 4:S1076-6332(21)00031-3. doi: 10.1016/j.acra.2021.01.022. Online ahead of print. PMID: 33583712 **Free PMC article**. Review.

[The age pattern of the male-to-female ratio in mortality from COVID-19 mirrors that of cardiovascular disease in the general population.](#)

Nimgaonkar I, Valeri L, Susser E, **Hussain S**, Sunderram J, Aviv A. Aging (Albany NY). 2021 Feb 7;13. doi: 10.18632/aging.202639. Online ahead of print. PMID: 33550276 **Free article**.

[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**.

Asthma and Allergy

[Occupational use of high-level disinfectants and asthma incidence in early- to mid-career female nurses: a prospective cohort study.](#)

Dumas O, Gaskins AJ, Boggs KM, Henn SA, Le Moual N, Varraso R, Chavarro JE, Camargo CA Jr. Occup Environ Med. 2021 Jan 15:oemed-2020-106793. doi: 10.1136/oemed-2020-106793. Online ahead of print. PMID: 33452037

[Tezepelumab as an Emerging Therapeutic Option for the Treatment of Severe Asthma: Evidence to Date.](#)

Dorey-Stein ZL, **Shenoy KV**. Drug Des Devel Ther. 2021 Jan 27;15:331-338. doi: 10.2147/DDDT.S250825. eCollection 2021. PMID: 33536746 **Free PMC article**. Review.

[Integrated associations of nasopharyngeal and serum metabolome with bronchiolitis severity and asthma: A multicenter prospective cohort study.](#)

Fujiogi M, Camargo CA Jr, Raita Y, Zhu Z, **Celedón JC**, Mansbach JM, Spergel JM, Hasegawa K. Pediatr Allergy Immunol. 2021 Feb 8. doi: 10.1111/pai.13466. Online ahead of print. PMID: 33559342

[Epithelial IL-33 appropriates exosome trafficking for secretion in chronic airway disease.](#)



Katz-Kiriakos E, Steinberg DF, Kluender CE, Osorio OA, Newsom-Stewart C, Baronia A, Byers DE, Holtzman MJ, Katafiasz D, **Bailey KL**, Brody SL, Miller MJ, Alexander-Brett J. *JCI Insight*. 2021 Jan 28;136166. doi: 10.1172/jci.insight.136166. Online ahead of print. PMID: 33507882

[National trends and disparities in healthcare access and coverage among adults with asthma and COPD: 1997 - 2018.](#)

Gaffney AW, Hawks L, Bor D, White AC, Woolhandler S, McCormick D, Himmelstein DU. *Chest*. 2021 Jan 23:S0012-3692(21)00107-0. doi: 10.1016/j.chest.2021.01.035. Online ahead of print. PMID: 33497651

[Ratio of Forced Expiratory Volume in 1 second /Slow Vital Capacity \(FEV₁/SVC\)<0.7 is associated with clinical, functional, and radiologic features of obstructive lung disease in smokers with preserved lung function.](#)

Fortis S, Comellas A, Bhatt SP, Hoffman EA, Han MK, Bhakta NR, Paine R 3rd, Ronish B, **Kanner RE**, Dransfield M, Hoesterey D, Buhr RG, Barr RG, Dolezal B, Ortega VE, Drummond MB, Arjomandi M, Kaner RJ, Kim V, Curtis JL, Bowler RP, Martinez F, Labaki WW, Cooper CB, O'Neal WK, Criner G, Hansel NN, Krishnan JA, Woodruff P, Couper D, Tashkin D, Barjaktarevic I. *Chest*. 2021 Feb 1:S0012-3692(21)00229-4. doi: 10.1016/j.chest.2021.01.067. Online ahead of print. PMID: 33539837

COPD, Chronic Bronchitis

[Normal Routine Spirometry Can Mask COPD/Emphysema in Symptomatic Smokers.](#)

Gelb AF, Yamamoto A, Verbeken EK, Hogg JC, **Tashkin DP**, Tran DNT, Moridzadeh RM, Fraser C, Schein MJ, Decramer M, Glassy EF, Nadel JA. *Chronic Obstr Pulm Dis*. 2021 Jan;8(1). doi: 10.15326/jcopdf.2020.0176. PMID: 33513660 **Free article.**

[Ratio of Forced Expiratory Volume in 1 second /Slow Vital Capacity \(FEV₁/SVC\)<0.7 is associated with clinical, functional, and radiologic features of obstructive lung disease in smokers with preserved lung function.](#)

Fortis S, Comellas A, Bhatt SP, Hoffman EA, Han MK, Bhakta NR, Paine R 3rd, Ronish B, Kanner RE, Dransfield M, Hoesterey D, Buhr RG, Barr RG, Dolezal B, Ortega VE, Drummond MB, Arjomandi M, Kaner RJ, Kim V, Curtis JL, Bowler RP, Martinez F, Labaki WW, Cooper CB, O'Neal WK, Criner G, Hansel NN, Krishnan JA, Woodruff P, Couper D, **Tashkin D**, Barjaktarevic I. *Chest*. 2021 Feb 1:S0012-3692(21)00229-4. doi: 10.1016/j.chest.2021.01.067. Online ahead of print. PMID: 33539837

[Mid-expiratory time as a potential spirometric index of early airflow obstruction.](#)

Hoesterey D, Graham B, **Tashkin DP**, Barjaktarevic I. *Respir Med*. 2021 Jan;176:105977. doi: 10.1016/j.rmed.2020.105977. Epub 2020 Apr 23. PMID: 33589145 No abstract available.



Occupational Injuries and Environmental Exposures

[Concentration-dependent health effects of air pollution in controlled human exposures.](#)

Orach J, **Rider CF, Carlsten C**. Environ Int. 2021 Feb 15;150:106424. doi: 10.1016/j.envint.2021.106424. Online ahead of print. PMID: 33596522 Review.

[Ventilatory responses to constant load exercise following the inhalation of a short-acting \$\beta_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 **Free article.**

[Air pollution exposure is linked with methylation of immunoregulatory genes, altered immune cell profiles, and increased blood pressure in children.](#)

Prunicki M, Cauwenberghs N, Lee J, Zhou X, Movassagh H, Noth E, Lurmann F, Hammond SK, **Balmes JR**, Desai M, Wu JC, Nadeau KC. Sci Rep. 2021 Feb 18;11(1):4067. doi: 10.1038/s41598-021-83577-3. PMID: 33603036

[An assessment of outpatient clinic room ventilation systems and possible relationship to disease transmission.](#)

King KG, **Delclos GL**, Brown EL, Emery ST, Yamal JM, Emery RJ. Am J Infect Control. 2021 Jan 21:S0196-6553(21)00023-7. doi: 10.1016/j.ajic.2021.01.011. Online ahead of print. PMID: 33485924

[Associations between acute and long-term exposure to PM2.5 components and temperature with QT interval length in the VA Normative Aging Study.](#)

Peralta AA, **Schwartz J, Gold DR**, Coull B, Koutrakis P. Eur J Prev Cardiol. 2021 Jan 20:zwaa161. doi: 10.1093/eurjpc/zwaa161. Online ahead of print. PMID: 33580791

[Longitudinal Evaluation of Lung Function in Gulf War I Veterans Exposed to Depleted Uranium.](#)

Glick, DR, Brown, CH, Li, L, Weiler-Lisowski, B, Gaitens, JM, McDiarmid, M, **Hines, SE**. Journal of Occupational and Environmental Medicine, 2020 Dec;62(12):1059-1062. doi: 10.1097/JOM.0000000000002053. PMID: 33055525

[High-throughput analysis of lung immune cells in a combined murine model of agriculture dust-triggered airway inflammation with rheumatoid arthritis.](#)

Gaurav R, Mikuls TR, Thiele GM, Nelson AJ, Niu M, Guda C, Eudy JD, Barry AE, **Wyatt TA**, Romberger DJ, Duryee MJ, England BR, **Poole JA**. PLoS One. 2021 Feb 12;16(2):e0240707. doi: 10.1371/journal.pone.0240707. eCollection 2021. PMID: 33577605 **Free article.**



[Exposure to traffic-related air pollution and changes in exhaled nitric oxide and DNA methylation in arginase and nitric oxide synthase in children with asthma.](#)

Ji N, Fang M, Baptista A, Cepeda C, Greenberg M, Mincey IC, Ohman-Strickland P, Haynes F, Fiedler N, **Kipen HM, Laumbach RJ**. *Environ Health*. 2021 Feb 11;20(1):12. doi: 10.1186/s12940-020-00678-8. PMID: 33573660 **Free PMC article.**

[PM2.5 Concentration and Composition in Subway Systems in the Northeastern United States.](#)

Luglio DG, Katsigeorgis M, Hess J, Kim R, Adragna J, Raja A, Gordon C, Fine J, **Thurston G**, Gordon T, Vilcassim MJR. *Environ Health Perspect*. 2021 Feb;129(2):27001. doi: 10.1289/EHP7202. Epub 2021 Feb 10. PMID: 33565894 **Free PMC article.**

[Associations between PM_{2.5} metal components and QT interval length in the Normative Aging Study.](#)

Peralta AA, **Schwartz J, Gold DR**, Coull B, Koutrakis P. *Environ Res*. 2021 Feb 4;195:110827. doi: 10.1016/j.envres.2021.110827. Online ahead of print. PMID: 33549618

[Responsibility for chemical exposures: perspectives from small beauty salons and auto shops in southern metropolitan Tucson.](#)

Lee AA, Ingram M, Quijada C, Yubeta A, Cortez I, Lothrop N, **Beamer P**. *BMC Public Health*. 2021 Feb 2;21(1):271. doi: 10.1186/s12889-021-10336-4. PMID: 33530969 **Free PMC article.**

[Native American Ancestry and Air Pollution Interact to Impact Bronchodilator Response in Puerto Rican Children with Asthma.](#)

Contreras MG, Keys K, Magaña J, Goddard PC, Risse-Adams O, Zeiger AM, Mak ACY, Samedy-Bates LA, Neophytou AM, Lee E, Thakur N, Elhawary JR, Hu D, Huntsman S, Eng C, Hu T, Burchard EG, **White MJ**. *Ethn Dis*. 2021 Jan 21;31(1):77-88. doi: 10.18865/ed.31.1.77. eCollection 2021 Winter. PMID: 33519158

Pulmonary Hypertension, Cardiopulmonary Disease and Sleep

[Dyspnea during exercise and voluntary hyperpnea in women with obesity.](#)

Spencer MD, Balmain BN, **Bernhardt V**, Wilhite DP, Babb TG. *Respir Physiol Neurobiol*. 2021 Feb 10:103638. doi: 10.1016/j.resp.2021.103638. Online ahead of print. PMID: 33581294

[Recurrent Pneumothorax with CPAP Therapy for Obstructive Sleep Apnea.](#)

Rajdev K, Idiculla PS, Sharma S, **Von Essen SG**, Murphy PJ, Bista S. *Case Rep Pulmonol*. 2020 Dec 1;2020:8898621. doi: 10.1155/2020/8898621. eCollection 2020. PMID: 33520324 **Free PMC article.**



Academic Medicine

[Sequencing of 53,831 diverse genomes from the NHLBI TOPMed Program.](#)

Taliun D, Harris DN, Kessler MD, Carlson J, Szpiech ZA, Torres R, Taliun SAG, Corvelo A, Gogarten SM, Kang HM, Pitsillides AN, LeFaive J, Lee SB, Tian X, Browning BL, Das S, Emde AK, Clarke WE, Loesch DP, Shetty AC, Blackwell TW, Smith AV, Wong Q, Liu X, Conomos MP, Bobo DM, Aguet F, Albert C, Alonso A, Ardlie KG, Arking DE, Aslibekyan S, Auer PL, Barnard J, Barr RG, Barwick L, Becker LC, Beer RL, Benjamin EJ, Bielak LF, Blangero J, Boehnke M, Bowden DW, Brody JA, Burchard EG, Cade BE, Casella JF, Chalazan B, Chasman DI, Chen YI, Cho MH, Choi SH, Chung MK, Clish CB, Correa A, Curran JE, Custer B, Darbar D, Daya M, de Andrade M, DeMeo DL, Dutcher SK, Ellinor PT, Emery LS, Eng C, Fatkin D, Fingerlin T, Forer L, Fornage M, Franceschini N, Fuchsberger C, Fullerton SM, Germer S, Gladwin MT, Gottlieb DJ, Guo X, Hall ME, He J, Heard-Costa NL, Heckbert SR, Irvin MR, Johnsen JM, Johnson AD, Kaplan R, Kardina SLR, Kelly T, Kelly S, Kenny EE, Kiel DP, Klemmer R, Konkle BA, Kooperberg C, Kottgen A, Lange LA, Lasky-Su J, Levy D, Lin X, Lin KH, Liu C, Loos RJF, Garman L, Gerszten R, Lubitz SA, Lunetta KL, Mak ACY, Manichaikul A, Manning AK, Mathias RA, McManus DD, McGarvey ST, Meigs JB, Meyers DA, Mikulla JL, Minear MA, Mitchell BD, Mohanty S, Montasser ME, Montgomery C, Morrison AC, Murabito JM, Natale A, Natarajan P, Nelson SC, North KE, O'Connell JR, Palmer ND, Pankratz N, Peloso GM, Peyser PA, Pleiness J, Post WS, Psaty BM, Rao DC, Redline S, Reiner AP, Roden D, Rotter JI, Ruczinski I, Sarnowski C, Schoenherr S, **Schwartz DA**, Seo JS, Seshadri S, Sheehan VA, Sheu WH, Shoemaker MB, Smith NL, Smith JA, Sotoodehnia N, Stilp AM, Tang W, Taylor KD, Telen M, Thornton TA, Tracy RP, Van Den Berg DJ, Vasan RS, Viaud-Martinez KA, Vrieze S, Weeks DE, Weir BS, Weiss ST, Weng LC, Willer CJ, Zhang Y, Zhao X, Arnett DK, Ashley-Koch AE, Barnes KC, Boerwinkle E, Gabriel S, Gibbs R, Rice KM, Rich SS, **Silverman EK**, Qasba P, Gan W; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium, Papanicolaou GJ, Nickerson DA, Browning SR, Zody MC, Zöllner S, Wilson JG, Cupples LA, Laurie CC, Jaquish CE, Hernandez RD, O'Connor TD, Abecasis GR. *Nature*. 2021 Feb;590(7845):290-299. doi: 10.1038/s41586-021-03205-y. Epub 2021 Feb 10. PMID: 33568819

[Whole-genome sequencing of African Americans implicates differential genetic architecture in inflammatory bowel disease.](#)

Somineni HK, Nagpal S, Venkateswaran S, Cutler DJ, Okou DT, Haritunians T, Simpson CL, Begum F, Datta LW, Quiros AJ, Seminerio J, Mengesha E, Alexander JS, Baldassano RN, Dudley-Brown S, Cross RK, Dassopoulos T, Denson LA, Dhere TA, Iskandar H, Dryden GW, Hou JK, **Hussain SZ**, Hyams JS, Isaacs KL, Kader H, Kappelman MD, Katz J, Kellermayer R, Kuemmerle JF, Lazarev M, Li E, Mannon P, Moulton DE, Newberry RD, Patel AS, Pekow J, Saeed SA, Valentine JF, Wang MH, McCauley JL, Abreu MT, Jester T, Molle-Rios Z, Palle S, Scherl EJ, Kwon J, Rioux JD, Duerr RH, Silverberg MS, Zwick ME, Stevens C, Daly MJ, Cho JH, Gibson G, McGovern DPB, Brant SR, Kugathasan S. *Am J Hum Genet*. 2021 Feb 11:S0002-9297(21)00043-4. doi: 10.1016/j.ajhg.2021.02.001. Online ahead of print. PMID: 33600772



[Single-cell RNA sequencing identifies macrophage transcriptional heterogeneities in granulomatous diseases.](#)

Liao SY, Atif SM, Mould K, Konigsberg IR, Fu R, Davidson E, **Li L**, Fontenot AP, **Maier LA**, Yang IV. *Eur Respir J*. 2021 Feb 18:2003794. doi: 10.1183/13993003.03794-2020. Online ahead of print. PMID: 33602861 No abstract available.

[Machine-Learning Modeling to Predict Hospital Readmission Following Discharge to Post-Acute Care.](#)

Howard EP, Morris JN, **Schachter E**, Schwarzkopf R, Shepard N, Buchanan ER. *J Am Med Dir Assoc*. 2021 Jan 14:S1525-8610(20)31066-5. doi: 10.1016/j.jamda.2020.12.017. Online ahead of print. PMID: 33454309

[Building on Diana Forsythe's legacy: the value of human experience and context in biomedical and health informatics.](#)

Unertl KM, **Abraham J**, Bakken SJ. *Am Med Inform Assoc*. 2021 Feb 15;28(2):197-208. doi: 10.1093/jamia/ocaa337. PMID: 33587750 No abstract available.

[Role of Mitochondrial DNA in Inflammatory Airway Diseases.](#)

Snyder RJ, **Kleeberger SR**. *Compr Physiol*. 2021 Feb 12;11(2):1485-1499. doi: 10.1002/cphy.c200010. PMID: 33577124

[Genome-wide association study of pediatric obsessive-compulsive traits: shared genetic risk between traits and disorder.](#)

Burton CL, Lemire M, Xiao B, Corfield EC, Erdman L, Bralten J, Poelmans G, Yu D, Shaheen SM, Goodale T, Sinopoli VM; OCD Working Group of the Psychiatric Genomics Consortium, Soreni N, Hanna GL, Fitzgerald KD, **Rosenberg D**, Nestadt G, Paterson AD, Strug LJ, Schachar RJ, Crosbie J, Arnold PD. *Transl Psychiatry*. 2021 Feb 2;11(1):91. doi: 10.1038/s41398-020-01121-9. PMID: 33531474 **Free PMC article.**

Critical Care

[The microcirculatory response to endotoxemia and resuscitation is a marker of regional renal perfusion, renal metabolic stress and tubular injury.](#)

Gomez H, Haugaa H, Escobar D, Botero AM, Pool R, Del Rio-Pertuz G, Manrique-Caballero CL, Gordon L, **Frank A**, Teboul JL, Zuckerbraun B, Pinsky MR. *Antioxid Redox Signal*. 2021 Feb 15. doi: 10.1089/ars.2020.8149. Online ahead of print. PMID: 33587005

[Association of Serum Mannose With Acute Respiratory Distress Syndrome Risk and Survival.](#)

Wei Y, Huang H, Zhang R, Zhu Z, Zhu Y, Lin L, Dong X, Wei L, Chen X, Liu Z, Zhao Y, **Su L**, Chen F, **Christiani DC**. *JAMA Netw Open*. 2021 Jan 4;4(1):e2034569. doi: 10.1001/jamanetworkopen.2020.34569. PMID: 33502483 **Free PMC article.**



Neonatal and Pediatric Disease

[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.**

[Chromosome 17q12-21 Variants are Associated with Multiple Wheezing Phenotypes in Childhood.](#)

Hallmark B, Wegienka G, Havstad S, Billheimer D, Ownby D, Mendonca EA, Gress L, Stern DA, Myers JB, Khurana Hershey GK, Hoepner L, Miller RL, Lemanske RF, Jackson DJ, **Gold DR**, O'Connor GT, Nicolae DL, Gern JE, Ober C, Wright AL, Martinez FD; ECHO-CREW. *Am J Respir Crit Care Med*. 2021 Feb 3. doi: 10.1164/rccm.202003-0820OC. Online ahead of print. PMID: 33535024

[Characteristics and Mechanisms of a Sphingolipid-associated Childhood Asthma Endotype.](#)

Rago D, Pedersen CT, Huang M, Kelly RS, Gürdeniz G, Brustad N, Knihtil H, Lee-Sarwar KA, Morin A, Rasmussen MA, Stokholm J, Bønnelykke K, **Litonjua AA**, Wheelock CE, Weiss ST, Lasky-Su J, Bisgaard H, Chawes BL. *Am J Respir Crit Care Med*. 2021 Feb 3. doi: 10.1164/rccm.202008-3206OC. Online ahead of print. PMID: 33535020

[FutureTox IV Workshop Summary: Predictive Toxicology for Healthy Children.](#)

Knudsen TB, Fitzpatrick SC, De Abrew KN, Birnbaum LS, Chappelle A, Daston GP, Dolinoy DC, **Elder A**, Euling S, Faustman EM, Fedinick KP, Franzosa JA, Haggard DE, Haws L, Kleinstreuer N, Louis GMB, Mendrick DL, Rudel R, Saili KS, Schug TT, Tanguay RL, Turley AE, Wetmore BA, White KW, Zurlinden TJ. *Toxicol Sci*. 2021 Feb 8:kfab013. doi: 10.1093/toxsci/kfab013. Online ahead of print. PMID: 33555348

Climate Change, Public Health and Policy

[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.**

[A New Era for *EHP*'s International Program.](#)

Hu H, **Kaufman JD**. *Environ Health Perspect*. 2021 Jan;129(1):11001. doi: 10.1289/EHP8737. Epub 2021 Jan 5. PMID: 33400597 **Free PMC article.** No abstract available.

[Public policy and health in the Trump era.](#)

Woolhandler S, Himmelstein DU, Ahmed S, Bailey Z, Bassett MT, Bird M, Bor J, Bor D, Carrasquillo O, Chowkwanyun M, Dickman SL, Fisher S, **Gaffney A**, Galea S, Gottfried RN, Grumbach K, Guyatt G, Hansen H, Landrigan PJ, Lighty M, McKee M, McCormick D, McGregor A, Mirza R, Morris JE,



Mukherjee JS, Nestle M, Prine L, Saadi A, Schiff D, Shapiro M, Tesema L, Venkataramani A. *Lancet*. 2021 Feb 10:S0140-6736(20)32545-9. doi: 10.1016/S0140-6736(20)32545-9. Online ahead of print. PMID: 33581802 Review. No abstract available.

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

[Electronic Cigarettes and Their Impact on Allergic Respiratory Diseases: A Work Group Report of the AAAAI Environmental Exposures and Respiratory Health Committee.](#)

Hernandez ML, Burbank AJ, Alexis NE, Rebuli ME, Hickman ED, **Jaspers I**, Guidos G.J *Allergy Clin Immunol Pract*. 2021 Feb 2:S2213-2198(21)00057-X. doi: 10.1016/j.jaip.2020.12.065. Online ahead of print. PMID: 33547027

[Inhaled Medication Use in Smokers With Normal Spirometry.](#)

Arnold NR, Wan ES, Hersh CP, Schwartz A, Kinney G, Young K, Hokanson J, **Regan EA**, Comellas AP, Fortis S. *Respir Care*. 2021 Feb 9:respcare.08016. doi: 10.4187/respcare.08016. Online ahead of print. PMID: 33563793

[Traffic-related Air Pollution is Associated with Glucose Dysregulation, Blood Pressure, and Oxidative Stress in Children.](#)

Mann JK, Lutzker L, Holm SM, Margolis HG, Neophytou AM, Eisen EA, Costello S, Tyner T, Holland N, Tindula G, Prunicki M, Nadeau K, Noth EM, Lurmann F, Hammond SK, **Balmes JR**. *Environ Res*. 2021 Feb 12:110870. doi: 10.1016/j.envres.2021.110870. Online ahead of print. PMID: 33587949

[Characterizing patterns of small pneumoconiotic opacities on chest radiographs of New Mexico coal miners.](#)

Rehman M, **Sood A**, Pollard C, Johnson D, Vlahovich K, Myers O, Shore X, Cook L, **Assad N**. *Arch Environ Occup Health*. 2021 Feb 15:1-5. doi: 10.1080/19338244.2021.1886035. Online ahead of print. PMID: 33583358

[Acute Myocardial Infarction Associated with Unconventional Natural Gas Development: A Natural Experiment.](#)

Denham A, Willis MD, **Croft D**, Liu L, Hill EL. *Environ Res*. 2021 Feb 10:110872. doi: 10.1016/j.envres.2021.110872. Online ahead of print. PMID: 33581094

[Respiratory exacerbations are associated with muscle loss in current and former smokers.](#)

Mason SE, Moreta-Martinez R, Labaki WW, Strand M, Baraghoshi D, **Regan EA**, Bon J, San Jose Estepar R, Casaburi R, McDonald MN, Rossiter H, Make BJ, Dransfield MT, Han MK, Young KA, Kinney G, Hokanson JE, San Jose Estepar R, Washko GR; COPD Gene Investigators; COPD Gene® Investigators. *Thorax*. 2021 Feb 11:thoraxjnl-2020-215999. doi: 10.1136/thoraxjnl-2020-215999. Online ahead of print. PMID: 33574123



[Retail Marketing of Menthol Cigarettes in Los Angeles, California: a Challenge to Health Equity.](#)

Smiley SL, Cho J, Blackman KCA, Cruz TB, Pentz MA, **Samet JM**, Baezconde-Garbanati L. *Prev Chronic Dis.* 2021 Feb 11;18:E11. doi: 10.5888/pcd18.200144.PMID: 33571082 **Free article.**

[Smoking, occupational exposures, and idiopathic pulmonary fibrosis among Swedish construction workers.](#)

Andersson M, **Blanc PD**, Torén K, Järholm B. *Am J Ind Med.* 2021 Feb 5. doi: 10.1002/ajim.23231. Online ahead of print.PMID: 33547652

Cancer

[Association between aspirin use and lung cancer incidence depends on high-frequency use, bodyweight, and age in U.S. adults.](#)

Dong X, He J, Lin L, Zhu Y, Chen C, **Su L**, Zhao Y, Zhang R, Wei Y, Chen F, **Christiani DC**. *Transl Lung Cancer Res.* 2021 Jan;10(1):392-401. doi: 10.21037/tlcr-20-414.PMID: 33569321 **Free PMC article.**

[Multiple screening approaches reveal HDAC6 as a novel regulator of glycolytic metabolism in triple-negative breast cancer.](#)

Dowling CM, Hollinshead KER, Di Grande A, Pritchard J, Zhang H, Dillon ET, Haley K, Papadopoulos E, **Mehta AK**, Bleach R, Lindner AU, Mooney B, Düssmann H, O'Connor D, Prehn JHM, Wynne K, Hemann M, Bradner JE, Kimmelman AC, Guerriero JL, Cagney G, Wong KK, Letai AG, Chonghaile TN. *Sci Adv.* 2021 Jan 15;7(3):eabc4897. doi: 10.1126/sciadv.abc4897. Print 2021 Jan.PMID: 33523897 **Free PMC article.**

[Preclinical PET imaging with the novel human antibody ⁸⁹Zr-DFO-REGN3504 sensitively detects PD-L1 expression in tumors and normal tissues.](#)

Kelly MP, Makonnen S, Hickey C, Arnold TC, Giurleo JT, Tavaré R, Danton M, Granados C, Chatterjee I, Dudgeon D, Retter MW, Ma D, Olson WC, **Thurston G**, Kirshner JR. *J Immunother Cancer.* 2021 Jan;9(1):e002025. doi: 10.1136/jitc-2020-002025.PMID: 33483343 **Free PMC article.**

[An Ecological Evaluation of Vinyl Chloride Exposure and Liver Cancer Incidence and Mortality in Texas.](#)

Towle KM, **Benson SM**, Egnot NS, Marsh GM. *J Clin Transl Hepatol.* 2021 Feb 28;9(1):99-105. doi: 10.14218/JCTH.2020.00073. Epub 2020 Dec 30.PMID: 33604260 **Free PMC article.** Review.

Sarcoidosis, Interstitial Lung Disease and Transplant

[Guiding therapeutic plasma exchange for AMR treatment in lung transplant recipients.](#)

Timofeeva OA, Choe J, Alsammak M, Yoon EJ, Geier SS, Mathew L, McCollick A, Carney K, Au J, Diamond A, Galli JA, **Shenoy K**, Mamary A, Seghal S, Mulhall P, Toyoda Y, Shigemura N, Cordova F, Criner G, Brown J. *Transpl Int.* 2021 Jan 20. doi: 10.1111/tri.13825. Online ahead of print.PMID: 33469943



[Interstitial lung abnormalities in patients with stage I non-small cell lung cancer are associated with shorter overall survival: the Boston lung cancer study.](#)

Hida T, Hata A, Lu J, Valtchinov VI, Hino T, Nishino M, Honda H, Tomiyama N, **Christiani DC**, Hatabu H. *Cancer Imaging*. 2021 Jan 19;21(1):14. doi: 10.1186/s40644-021-00383-w.PMID: 33468255 **Free PMC article.**

[A comprehensive assessment of environmental exposures and the medical history guides multidisciplinary discussion in interstitial lung disease.](#)

Dodia, N, Amariei, D, Kenaa, B, Corwin, D, Chelala L, Britt EJ, Sachdeva, A, Luzina IG, Hasday, JD, Atamas, SP, Franks TJ, Burke AP, **Hines, S**, Galvin JR, Todd, NW. *Respiratory Medicine*. Available online 11 February 2021, 106333, <https://doi.org/10.1016/j.rmed.2021.106333>

[Characteristics and Prevalence of Domestic and Occupational Inhalational Exposures Across Interstitial Lung Diseases.](#)

Lee, C, Adegunsoye, A, Chung, J, Ventura, I, Jablonski, R, Montner, S, Vij, R, **Hines, S**; Streck, M. *Chest*, 2021 Feb 20;S0012-3692(21)00292-0. doi: 10.1016/j.chest.2021.02.026. Online ahead of print. PMID: 33621598

Cellular Mechanisms

[Transcriptome-Level Interactions between Budesonide and Formoterol Provide Insight into the Mechanism of Action of Inhaled Corticosteroid/Long-Acting \$\beta_2\$ -Adrenoceptor Agonist Combination Therapy in Asthma.](#)

Mostafa MM, **Rider CF**, Wathugala ND, Leigh R, Giembycz MA, Newton R. *Mol Pharmacol*. 2021 Mar;99(3):197-216. doi: 10.1124/molpharm.120.000146. Epub 2020 Dec 29.PMID: 33376135 **Free article.**

Extrapulmonary Medicine

[Fine Particulate Matter and Markers of Alzheimer's Disease Neuropathology at Autopsy in a Community-Based Cohort.](#)

Shaffer RM, Li G, Adar SD, Dirk Keene C, Latimer CS, Crane PK, Larson EB, **Kaufman JD**, Carone M, Sheppard LJ *Alzheimers Dis*. 2021 Jan 13. doi: 10.3233/JAD-201005. Online ahead of print.PMID: 33459717

[Arsenic, Blood Pressure, and Hypertension in the Strong Heart Family Study.](#)

Kaufman JA, Mattison C, Fretts AM, Umans JG, Cole SA, Voruganti VS, Goessler W, Best LG, Zhang Y, Tellez-Plaza M, Navas-Acien A, Gribble MO. *Environ Res*. 2021 Feb 10:110864. doi: 10.1016/j.envres.2021.110864. Online ahead of print.PMID: 33581093

[Hot Flashes and Cardiovascular Disease Risk Indices Among Women With HIV.](#)

Toribio M, Fulda ES, Chu SM, Drobni ZD, Awadalla M, Cetlin M, Stanley TL, **North CM**, Nelson MD, Jerosch-Herold M, Szczepaniak LS, Burdo TH, Looby SE, Neilan TG, Zanni MV. *Open Forum Infect Dis*. 2021 Jan 12;8(2):ofab011. doi: 10.1093/ofid/ofab011. eCollection 2021 Feb.PMID: 33575428



Member Announcements

Anthony M Szema, MD, FCCP, FAAAAI, FACP and ATSF

Clinical Associate Professor of Medicine, Division of Pulmonary and Critical Care, Division of Allergy/Immunology, Northwell Health
Clinical Associate Professor of Occupational Medicine, Epidemiology, and Prevention
Director, International Center of Excellence in Deployment Health and Medical Geosciences
Donald and Barbara Zucker School of Medicine at Hofstra/Northwell

Will be on CSPAN Wednesday, March 10th @ 3PM to testify virtually before the US Senate Committee on Veterans Affairs, regarding lung health hazards from burn pits.

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

Juan C. Celedón, MD, DrPH, ATSF

Lynn M. Schnapp, MD, ATSF, President-Elect

James M. Beck, MD, ATSF, Immediate Past President

Gregory P. Downey, MD, ATSF, Vice President

M. Patricia Rivera, MD, ATSF, Secretary-Treasurer

Karen J. Collishaw, MPP, CAE, Executive Director

Stephanie London, MD, DrPH Chair, Assembly on Environmental, Occupational and Population Health

Updates from Terrorism and Inhalation Disasters (TID) Section

Breaking news!!!

ATS approved two awards for TID-
Section that will be effective from 2022.



1. Award for outstanding contributions to the mission of TID section

The award will be given to an individual who has made outstanding scientific and scholarly contributions to areas related to the TID mission. Awardees will be presented with a framed certificate at the ATS International Conference.

Eligibility and materials to be submitted

- Associate or full professor (5 or more years from reaching the associate professor level or equivalent)
- Outstanding contributions to basic or translational science research, education and/or training in areas broadly related to TID
- Nominees must be an EOPH /TID member
- Nominations must include a cover letter (<2 pages) from an assembly member describing candidate's qualification and accomplishments and why the award is appropriate. Letters can be co-signed by more than one nominator. Members cannot self-nominate
- Nominee's curriculum vitae must be included in the submission.
- Previous awardees are not eligible for the same award
- Applications will be reviewed by the TID Executive Committee with members who are in conflict excluded.

2. Outstanding TID Abstract award

This award recognizes a trainee (graduate student, post-doctoral fellow, clinical trainee) or early scientist/faculty (within 3 years of first faculty appointment) for their abstract at the ATS International Conference related to TID. Awardees will be presented with a framed certificate at the ATS International Conference.

Eligibility and Evaluation Criteria

- Nominees must be an EOPH/TID member
- Previous awardees are not eligible for the same award

- Judging will be conducted by the EOPH program committee including TID delegates.
- The award will be selected based on the highest ranking abstract related to the work of TID that is submitted to an EOPH abstract category

COVID-19 Vaccination Materials

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

[ATS Conference 2020 - Join Us for ATS 2021 \(thoracic.org\)](#)

The ATS is moving ahead with plans for a hybrid meeting for 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 \(thoracic.org\)](#)

Featured publication of the month

Pantazides BG, Crow BS, Quiñones-González J, Perez JW, Harvilchuck JA, Wallery JJ, Hu TC, Thomas JD, Johnson RC, Blake TA. Development of a clinical assay to measure chlorinated tyrosine in hair and tissue samples using a mouse chlorine inhalation exposure model. *Anal Bioanal Chem.* 2021 Mar;413(6):1765-1776. doi: 10.1007/s00216-020-03146-x. Epub 2021 Jan 28. PMID: 33511457.

Abstract: Chlorine is a toxic industrial chemical with a history of use as a chemical weapon. Chlorine is also produced, stored, and transported in bulk making it a high-priority pulmonary threat in the USA. Due to the high reactivity of chlorine, few biomarkers exist to identify exposure in clinical and environmental samples. Our laboratory evaluates acute chlorine exposure in clinical samples by measuring 3-chlorotyrosine (Cl-Tyr) and 3,5-dichlorotyrosine (Cl₂-Tyr) using liquid chromatography tandem mass spectrometry (LC-MS/MS). Individuals can have elevated biomarker levels due to their environment and chronic health conditions, but levels are significantly lower in individuals exposed to chlorine. Historically these biomarkers have been evaluated in serum, plasma, blood, and bronchoalveolar lavage (BAL) fluid. We report the expansion into hair and lung tissue samples using our newly developed tissue homogenization protocol which fits seamlessly with our current chlorinated

tyrosine quantitative assay. Furthermore, we have updated the chlorinated tyrosine assay to improve throughput and ruggedness and reduce sample volume requirements. The improved assay was used to measure chlorinated tyrosine levels in 198 mice exposed to either chlorine gas or air. From this animal study, we compared Cl-Tyr and Cl₂-Tyr levels among three matrices (i.e., lung, hair, and blood) and found that hair had the most abundant chlorine exposure biomarkers. Furthermore, we captured the first timeline of each analyte in the lung, hair, and blood samples. In mice exposed to chlorine gas, both Cl-Tyr and Cl₂-Tyr were present in blood and lung samples up to 24 h and up to 30 days in hair samples.

Congratulations to all authors!!!

Funding opportunities

NIH CounterACT program for the first introduces R21 grant opportunity for Early Stage Investigators: <https://grants.nih.gov/grants/guide/notice-files/NOT-NS-21-030.html>

Key features of this FOA: This FOA employs an enhanced R21 Research Grant mechanism to provide up to \$400,000 in direct costs over three years (no more than \$200,000 in any one year), allowing expanded time and resources to develop a research project and support ESIs.

All applicants to this FOA must meet the NIH definition of an Early Stage Investigators ([ESI](#)) at the time of submission. Additionally, to increase the diversity of the NIH research community, applications from ESI investigators that are underrepresented in the biomedical, behavioral or clinical research workforce, such as those from underrepresented racial and ethnic groups, those with disabilities, those from disadvantaged backgrounds and women, are encouraged.

Preliminary Data: A distinct feature for this FOA is that no preliminary data are required, expected, or encouraged. However, if available, some minimal preliminary data is allowed. Preliminary data are defined as material which the applicant has independently produced and not yet published in a peer-reviewed journal. All preliminary data must be clearly marked and limited to one-half page, which may include one figure. Applications including more than one half-page of preliminary data or more than one figure will be withdrawn. References and data from widely available preprints that have a Digital Object Identifier (DOI) are considered published.



<https://www.thoracic.org/about/health-equality/ats-fellows-health-equality.php>

Relevant publications for TID Section

Hines, SE, Tai, S., German, J., Chen, H., Madden, M., Lulaj, E., Tong, C., Apte, M., Herman, S., Birrell, A., Milton, D., McDiarmid, M. Halo Respirator Assessment of Reprocessing and Cleaning (ARC). JISRP, 2020:37(1):1-13 <https://www.isrp.com/the-isrp-journal/journal-public-abstracts/1139-vol-37-no-1-2020-jisrp>

Hines, SE, Oliver, M, Gucer, McDiarmid, M. Self-reported Impact of Respirator Use on Healthcare Worker Ability to Perform Patient Care. American Journal of Infection Control, 2020:48:1556-1558. DOI:<https://doi.org/10.1016/j.ajic.2020.06.005>

Hines, SE, Brown, C, Oliver, M, Gucer, P, Frisch, M, Hogan, R, Roth, T, Chang, J, McDiarmid, M. Cleaning and Disinfection Perceptions and Use Practices Among Elastomeric Respirator Users in Healthcare. Workplace Health and Safety, 2020:68(12):572-582. PMID: 32812845 DOI: 10.1177/2165079920938618

Chavis S, Hines SE, Dyalram, D, Wilken, N, Dalby R. Can Extraoral Suction Units Minimize Droplet Spatter During A Simulated Dental Procedure? The Journal of the American Dental Association, Volume 152, Issue 2, 2021, Pages 157-165. PMID: 33494869 PMCID: PMC7826119 DOI: 10.1016/j.adaj.2020.10.010

Hines, SE, Chin, KH, Glick, DR, Wickwire, EM. Trends in Moral Injury, Distress, and Resilience Factors among Healthcare Workers at the Beginning of the COVID-19 Pandemic. International Journal of Environmental Research and Public Health. 2021; 18(2):488. <https://doi.org/10.3390/ijerph18020488>

Loic Anderegg, John Doyle, Margaret L. Gardel, Amit Gupta, Christian Hallas, Stella Hines, Yuri Lensky, Nancy G. Love, Bronwyn A. Lucas, Edward Mazenc, Cole Meisenhelder, Ajay Pillarisetti, Daniel Ranard, Allison H. Squires, Jessica Vechakul, Nathaniel B. Vilas, Stuart Williams, Daniel Wilson, Tyler N. Chen; and the N95DECON consortium. Heat and Humidity for Bioburden

Reduction of N95 Filtering Facepiece Respirators. *Applied Biosafety*. 13 Jan 2021 <https://doi.org/10.1089/apb.20.0053>

Jeong S, Lee JH, Ha JH, Kim J, Kim I, Bae S. An Exploratory Study of the Relationships Between Diesel Engine Exhaust Particle Inhalation, Pulmonary Inflammation and Anxious Behavior. *Int J Environ Res Public Health*. 2021 Jan 28;18(3):1166. doi: 10.3390/ijerph18031166. PMID: 33525689; PMCID: PMC7908540.

Kobziar LN, Thompson GR 3rd. Wildfire smoke, a potential infectious agent. *Science*. 2020 Dec 18;370(6523):1408-1410. doi: 10.1126/science.abe8116. PMID: 33335049.

Navarro K. Working in Smoke:: Wildfire Impacts on the Health of Firefighters and Outdoor Workers and Mitigation Strategies. *Clin Chest Med*. 2020 Dec;41(4):763-769. doi: 10.1016/j.ccm.2020.08.017. PMID: 33153693.

Nelson J, Chalbot MG, Pavicevic Z, Kavouras IG. Characterization of exhaled breath condensate (EBC) non-exchangeable hydrogen functional types and lung function of wildland firefighters. *J Breath Res*. 2020 Sep 24;14(4):046010. doi: 10.1088/1752-7163/abb761. PMID: 32969351.

[Integration of transcriptome analysis with pathophysiological endpoints to evaluate cigarette smoke toxicity in an in vitro human airway tissue model.](#)

Xiong R, Wu Y, Wu Q, Muskhelishvili L, Davis K, Tripathi P, Chen Y, Chen T, Bryant M, Rosenfeldt H, Healy SM, Cao X.

Arch Toxicol. 2021 Mar 3. doi: 10.1007/s00204-021-03008-0. Online ahead of print. PMID: 33660061

[Optimization of an air-liquid interface in vitro cell co-culture model to estimate the hazard of aerosol exposures.](#)

He RW, Braakhuis HM, Vandebriel RJ, Staal YCM, Gremmer ER, Fokkens PHB, Kemp C, Vermeulen J, Westerink RHS, Cassee FR.

J Aerosol Sci. 2021 Mar;153:105703. doi: 10.1016/j.jaerosci.2020.105703. PMID: 33658726 Free PMC article.

[Epimutational effects of electronic cigarettes.](#)

Yan R, Chen XL, Xu YM, Lau ATY.

Environ Sci Pollut Res Int. 2021 Mar 2. doi: 10.1007/s11356-021-12985-9. Online ahead of print. PMID: 33655478 Review.

[Retrospective review of nicotine exposures in California from 2012 to 2018 and analysis of the impacts of e-cigarette regulations.](#)

Driller G, Plasencia E, Apollonio DE.

BMJ Open. 2021 Mar 2;11(3):e043133. doi: 10.1136/bmjopen-2020-043133. PMID: 33653751

[Synchrotron-based X-ray fluorescence microscopy reveals accumulation of polymyxins in single human alveolar epithelial cells.](#)

Azad MAK, Zhang S, Li J, Kim Y, Yu HH, Fulcher AJ, Howard DL, de Jonge MD, James SA, Roberts KD, Velkov T, Fu J, Zhou QT, Li J.

Antimicrob Agents Chemother. 2021 Mar 1;AAC.02314-20. doi: 10.1128/AAC.02314-20. Online ahead of print.

PMID: 33649114

[Clinical profile and outcome of acute organophosphate poisoning in children of Upper Egypt: a cross-sectional study.](#)

Abdel Baseer KA, Gad EF, Abdel Raheem YF.

BMC Pediatr. 2021 Feb 26;21(1):98. doi: 10.1186/s12887-021-02563-w.

PMID: 33637060 Free PMC article.

[Health risks of inhaled selected toxic elements during the haze episodes in Shijiazhuang, China: Insight into critical risk sources.](#)

Diao L, Zhang H, Liu B, Dai C, Zhang Y, Dai Q, Bi X, Zhang L, Song C, Feng Y.

Environ Pollut. 2021 Feb 5;276:116664. doi: 10.1016/j.envpol.2021.116664. Online ahead of print.

PMID: 33609903

[Endothelial Progenitor Cells as Critical Mediators of Environmental Air Pollution-Induced Cardiovascular Toxicity.](#)

Singh P, O'Toole TE, Conklin DJ, Hill BG, Haberzettl P.

Am J Physiol Heart Circ Physiol. 2021 Feb 19. doi: 10.1152/ajpheart.00804.2020. Online ahead of print.

PMID: 33606580

[DNA methylome signatures as epigenetic biomarkers of hexanal associated with lung toxicity.](#)

Cho Y, Song MK, Ryu JC.

PeerJ. 2021 Feb 4;9:e10779. doi: 10.7717/peerj.10779. eCollection 2021.

PMID: 33604181 Free PMC article.

[Lung toxicity and gene expression changes in response to whole-body inhalation exposure to cellulose nanocrystal in rats.](#)

Joseph P, Umbright CM, Roberts JR, Cumpston JL, Orandle MS, McKinney WG, Sager TM.

Inhal Toxicol. 2021 Feb 18:1-15. doi: 10.1080/08958378.2021.1884320. Online ahead of print.

PMID: 33602020

[Skin irritation and inhalation toxicity of biocides evaluated with reconstructed human epidermis and airway models.](#)

Hwang JH, Jeong H, Jung YO, Nam KT, Lim KM.

Food Chem Toxicol. 2021 Feb 15;150:112064. doi: 10.1016/j.fct.2021.112064. Online ahead of print.

PMID: 33596452

[A review of constituents identified in e-cigarette liquids and aerosols.](#)

Eshraghian EA, Al-Delaimy WK.

Tob Prev Cessat. 2021 Feb 10;7:10. doi: 10.18332/tpc/131111. eCollection 2021.

PMID: 33585727 Free PMC article. Review.

[Carfentanil - from an animal anesthetic to a deadly illicit drug.](#)

Zawilska JB, Kuczyńska K, Kosmal W, Markiewicz K, Adamowicz P.

Forensic Sci Int. 2021 Mar;320:110715. doi: 10.1016/j.forsciint.2021.110715. Epub 2021 Jan 30.

PMID: 33581655 Review.

[Diesel exhaust particles alter the profile and function of the gut microbiota upon subchronic oral administration in mice.](#)

van den Brule S, Rappe M, Ambroise J, Bouzin C, Dessy C, Paquot A, Muccioli GG, Lison D.

Part Fibre Toxicol. 2021 Feb 9;18(1):7. doi: 10.1186/s12989-021-00400-7.

PMID: 33563307 Free PMC article.

[Carbon Tetrachloride Toxicity.](#)

Al Amin ASM, Menezes RG.

2021 Feb 6. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan–.

PMID: 32965851 Free Books & Documents. Review.

[Ammonia Toxicity.](#)

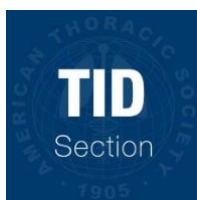
Padappayil RP, Borger J.

2021 Feb 6. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan–.

PMID: 31536283 Free Books & Documents. Review.



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