

THE ASSEMBLY ON

Environmental, Occupational, and Population Health

NEWSLETTER



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Volume 7 | Issue 3
March 2021

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Dear EOPH Members,

We hope everyone is staying safe and healthy as we continue to navigate and we start the second year of our response to the COVID-19 pandemic.

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

Also included in this **March 2021** newsletter are some of our members' recent articles.

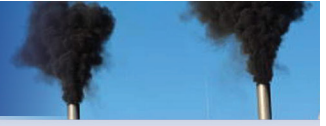
If you have a recent publication or other items (available jobs, lectures/seminars) that you would like to share in the upcoming newsletter, please send the title and citation link to sophia.kwon@nyulangone.org and TID Section relevant postings to satya.achanta@duke.edu.

Are you interested in getting more involved with ATS and the EOPH assembly? Register to indicate your interest!
<https://www.thoracic.org/members/assemblies/get-involved-with-ats.php>

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

[Occupations by Proximity and Indoor/Outdoor Work: Relevance to COVID-19 in All Workers and Black/Hispanic Workers.](#) **Cox-Ganser JM, Henneberger PK.** *Am J Prev Med.* 2021 Feb 2:S0749-3797(21)00069-6. doi: 10.1016/j.amepre.2020.12.016. Online ahead of print.PMID: 33745817 **Free PMC article.**

[Shotgun transcriptome, spatial omics, and isothermal profiling of SARS-CoV-2 infection reveals unique host responses, viral diversification, and drug interactions.](#) Butler D, Mozsary C, Meydan C, Foox J, Rosiene J, Shaiber A, Danko D, Afshinnekoo E, MacKay M, Sedlazeck FJ, Ivanov NA, Sierra M, Pohle D, Zietz M, Gisladottir U, Ramlall V, Sholle ET, Schenck EJ, Westover CD, Hassan C, Ryon K, Young B, Bhattacharya C, Ng DL, Granados AC, Santos YA, Servellita V, Federman S, Ruggiero P, Fungtammasan A, Chin CS, Pearson NM, Langhorst BW, Tanner NA, Kim Y, Reeves JW, Hether TD, Warren SE, Bailey M, Gawrys J, Meleshko D, Xu D, Couto-Rodriguez M, Nagy-Szakal D, Barrows J, Wells H, O'Hara NB, Rosenfeld JA, Chen Y, Steel PAD, Shemesh AJ, Xiang J, Thierry-Mieg J, Thierry-Mieg D, Iftner A, Bezdán D, Sanchez E, Champion TR Jr, Siple J, Cong L, Craney A, Velu P, Melnick AM, Shapira S, Hajirasouliha I, Borczuk A, Iftner T, **Salvatore M**, Loda M, Westblade LF, Cushing M, Wu S, Levy S, Chiu C, Schwartz RE, Tatonetti N, Rennert H, Imielinski M, Mason CE. *Nat Commun.* 2021 Mar 12;12(1):1660. doi: 10.1038/s41467-021-21361-7.PMID: 33712587 **Free article.**

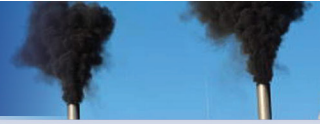
[SARS-CoV-2 Infection Hospitalization Rate and Infection Fatality Rate Among the Non-Congregate Population in Connecticut.](#) Mahajan S, Caraballo C, Li SX, Dong Y, Chen L, Huston SK, Srinivasan R, **Redlich CA**, Ko AI, Faust JS, Forman HP, Krumholz HM. *Am J Med.* 2021 Feb 20:S0002-9343(21)00099-1. doi: 10.1016/j.amjmed.2021.01.020. Online ahead of print.PMID: 33617808 **Free PMC article.**

[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.

[COVID-19 Mortality in California Based on Death Certificates: Disproportionate Impacts Across Racial/Ethnic Groups and Nativity.](#) Garcia E, **Eckel SP**, Chen Z, Li K, **Gilliland FD.** *Ann Epidemiol.* 2021 Mar 18:S1047-2797(21)00043-0. doi: 10.1016/j.annepidem.2021.03.006. Online ahead of print.PMID: 33746033

[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 PMC article.** Review.



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, Sánchez-Borges M, Caraballo LR, Wong G, Ortega-Martell JA, Rouadi P, Yáñez A, Wang LL, **Peden DB**, Chikhladze M, González-Díaz SN, Fontaine JF, Sublett J, Chang YS, Passalacqua G, Ansotegui IJ, Ebisawa M, Senna G, Caminati M. *World Allergy Organ J.* 2021 Feb;14(2):100515. doi: 10.1016/j.waojou.2021.100515. Epub 2021 Jan 31. PMID: 33552380 **Free PMC article.**

Asthma and Allergy

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.

Association between asthma and sugar-sweetened beverage consumption in the United States pediatric population. Xie L, Atem F, Gelfand A, **Delclos G**, Messiah SE. *J Asthma.* 2021 Mar 10:1-8. doi: 10.1080/02770903.2021.1895210. Online ahead of print. PMID: 33625285

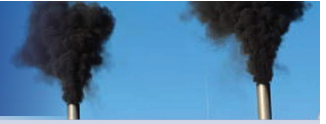
PredSE: Precision Medicine in Severe Asthma An Adaptive Platform Trial with Biomarker Ascertainment. Israel E, Denlinger LC, Bacharier LB, LaVange LM, Moore WC, Peters MC, Georas SN, Wright RJ, Mauger DT, Noel P, Akuthota P, Bach J, Bleecker ER, Cardet JC, Carr TF, Castro M, Cinelli A, Comhair SAA, Covar RA, Alexander LC, DiMango EA, Erzurum SC, Fahy JV, Fajt ML, Gaston BM, Hoffman EA, Holguin F, Jackson DJ, Jain S, Jarjour NN, Ji Y, Kenyon NJ, Kosorok MR, Kraft M, Krishnan JA, Kumar R, **Liu AH**, Liu MC, Ly NP, Marquis MA, Martinez FD, Moy JN, O'Neal WK, Ortega VE, **Peden DB**, Phipatanakul W, Ross K, Smith LJ, Szeffler SJ, Teague WG, Tulchinsky AF, Vijayanand P, Wechsler ME, Wenzel SE, White SR, Zeki AA, Ivanova A. *J Allergy Clin Immunol.* 2021 Mar 2:S0091-6749(21)00352-3. doi: 10.1016/j.jaci.2021.01.037. Online ahead of print. PMID: 33667479

Long-term exposure to ambient air pollution and road traffic noise and asthma incidence in adults: The Danish Nurse cohort. Liu S, Lim YH, Pedersen M, Jørgensen JT, Amini H, Cole-Hunter T, **Mehta AJ**, So R, Mortensen LH, Westendorp RGJ, Loft S, Bräuner EV, Ketzler M, Hertel O, Brandt J, Jensen SS, Christensen JH, Sigsgaard T, Geels C, Frohn LM, Brborić M, Radonić J, Sekulic MT, Bønnelykke K, Backalarz C, Simonsen MK, Andersen ZJ. *Environ Int.* 2021 Mar 5;152:106464. doi: 10.1016/j.envint.2021.106464. Online ahead of print. PMID: 33684733 **Free article.**

COPD, Chronic Bronchitis

Smoking cessation in COPD: confronting the challenge. **Tashkin DP**. *Intern Emerg Med.* 2021 Mar 25. doi: 10.1007/s11739-021-02710-2. Online ahead of print. PMID: 33765300 No abstract available.

The influence of social support on COPD outcomes mediated by depression. Turnier L, Eakin M, Woo H, Dransfield M, Parekh T, Krishnan JA, **Kanner R**, Cooper CB, Woodruff PG, Wise R, Han MK, Romero K, **Paulin LM**, Peters S, Drummond B, Bleecker ER, Bowler R, Comellas AP, Couper D, Paine R, Martinez F, Barr G, Putcha N, Hansel NN. *PLoS One.* 2021 Mar 17;16(3):e0245478. doi: 10.1371/journal.pone.0245478. eCollection 2021. PMID: 33730034 **Free article.**



Particulate Matter and Cardiovascular Risk in Adults with Chronic Obstructive Pulmonary Disease. Alexeeff SE, Deosaransingh K, Liao NS, Van Den Eeden SK, **Schwartz J**, Sidney S. *Am J Respir Crit Care Med.* 2021 Mar 4. doi: 10.1164/rccm.202007-2901OC. Online ahead of print. PMID: 33662228

The influence of social support on COPD outcomes mediated by depression. Turnier L, Eakin M, Woo H, Dransfield M, Parekh T, Krishnan JA, Kanner R, Cooper CB, Woodruff PG, Wise R, Han MK, Romero K, Paulin LM, Peters S, Drummond B, Bleecker ER, Bowler R, Comellas AP, Couper D, Paine R, Martinez F, Barr G, **Putchá N**, Hansel NN. *PLoS One.* 2021 Mar 17;16(3):e0245478. doi: 10.1371/journal.pone.0245478. eCollection 2021. PMID: 33730034 **Free article.**

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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 Apr;195:110864. doi: 10.1016/j.envres.2021.110864. Epub 2021 Feb 11. PMID: 33581093

Evaluation of a commercial database to estimate residence histories in the Los Angeles Ultrafines Study. Medgyesi DN, Fisher JA, Flory AR, Hayes RB, **Thurston GD**, Liao LM, Ward MH, Silverman DT, Jones RR. *Environ Res.* 2021 Mar 6:110986. doi: 10.1016/j.envres.2021.110986. Online ahead of print. PMID: 33689822

Diurnal variability of fine-particulate pollution concentrations: data from 14 low- and middle-income countries. Dobson R, Siddiqi K, Ferdous T, Huque R, Lesosky M, **Balmes J**, Semple S. *Int J Tuberc Lung Dis.* 2021 Mar 1;25(3):206-214. doi: 10.5588/ijtld.20.0704. PMID: 33688809 **Free PMC article.**

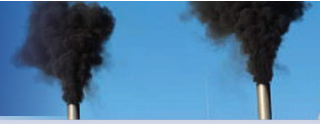
The clear and persistent impact of air pollution on chronic respiratory diseases: a call for interventions. Annesi-Maesano I, Forastiere F, Balmes J, Garcia E, Harkema J, Holgate S, Kelly F, Khreis H, Hoffmann B, Maesano CN, McConnell R, Peden D, Pinkerton K, Schikowski T, **Thurston G**, Van Winkle LS, Carlsten C. *Eur Respir J.* 2021 Mar 18;57(3):2002981. doi: 10.1183/13993003.02981-2020. Print 2021 Mar. PMID: 33737377 No abstract available.

Mine-site derived particulate matter exposure exacerbates neurological and pulmonary inflammatory outcomes in an autoimmune mouse model. Wilson A, Velasco CA, Herbert GW, Lucas SN, Sanchez BN, Cerrato JM, Spilde M, Li QZ, **Campen MJ**, Zychowski KE. *J Toxicol Environ Health A.* 2021 Mar 7:1-15. doi: 10.1080/15287394.2021.1891488. Online ahead of print. PMID: 33682625

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 PMC article.**

Ongoing downplaying of the carcinogenicity of chrysotile asbestos by vested interests. Baur X, **Frank AL**. *J Occup Med Toxicol.* 2021 Feb 23;16(1):6. doi: 10.1186/s12995-021-00295-2. PMID: 33622366 **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.



Improving Air Pollution Predictions of Long-Term Exposure Using Short-Term Mobile and Stationary Monitoring in Two US Metropolitan Regions.

Tessum MW, Sheppard L, Larson TV, Gould TR, **Kaufman JD**, **Vedal S**. *Environ Sci Technol*. 2021 Mar 16;55(6):3530-3538. doi: 10.1021/acs.est.0c04328. Epub 2021 Feb 26. PMID: 33635626

Ambient air pollution and risk of respiratory infection among adults: evidence from the multiethnic study of atherosclerosis (MESA). Kirwa K, Eckert CM, **Vedal S**, Hajat A, **Kaufman JD**. *BMJ Open Respir Res*. 2021 Mar;8(1):e000866. doi: 10.1136/bmjresp-2020-000866. PMID: 33664125 **Free PMC article**.

Pilot study determining the feasibility of implementing the Disadvantaged Populations eGFR Epidemiology Study (DEGREE) protocol, point-of-care field measurements and a new module on risk factors for chronic kidney disease of unknown origin in Hispanic outdoor workers. Figueroa-Solis E, Gimeno Ruiz de Porras D, **Delclos GL**. *BMC Nephrol*. 2021 Mar 12;22(1):88. doi: 10.1186/s12882-021-02288-z. PMID: 33711949 **Free PMC article**.

Maternal exposure to PM_{2.5} during pregnancy and asthma risk in early childhood: consideration of phases of fetal lung development. Hazlehurst MF, Carroll KN, Loftus CT, Szpiro AA, Moore PE, **Kaufman JD**, Kirwa K, LeWinn KZ, Bush NR, Sathyanarayana S, Tylavsky FA, Barrett ES, Nguyen RHN, Karr CJ. *Environ Epidemiol*. 2021 Apr;5(2):e130. doi: 10.1097/ee9.000000000000130. PMID: 33709049

Responding to Natural and Industrial Disasters: Partnerships and Lessons Learned. Symanski E, An Han H, Han I, McDaniel M, Whitworth KW, McCurdy S, Perkison WB, Rammah A, Lewis PGT, **Delclos GL**, Craft E, Bondy M, Walker CL, Hopkins L, Cedeño Laurent JG, James D. *Disaster Med Public Health Prep*. 2021 Mar 16:1-4. doi: 10.1017/dmp.2020.467. Online ahead of print. PMID: 33722331

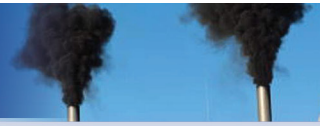
Associations between acute and long-term exposure to PM_{2.5} components and temperature with QT interval length in the VA Normative Aging Study. Peralta AA, **Schwartz J**, **Gold DR**, Coull B, Koutrakis P. *Eur J Prev Cardiol*. 2021 Jan 20:zwaa161. doi: 10.1093/eurjpc/zwaa161. Online ahead of print. PMID: 33580791 **Free article**.

Estimation of excess mortality due to long-term exposure to PM_{2.5} in continental United States using a high-spatiotemporal resolution model. Vodonos A, **Schwartz J**. *Environ Res*. 2021 Feb 23;196:110904. doi: 10.1016/j.envres.2021.110904. Online ahead of print. PMID: 33636186

Are Cal/OSHA Regulations Protecting Farmworkers in California from Heat-Related Illness?

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Genetically predicted circulating concentrations of micronutrients and risk of colorectal cancer among individuals of European descent: a Mendelian randomization study. Tsilidis KK, Papadimitriou N, Dimou N, Gill D, Lewis SJ, Martin RM, Murphy N, Markozannes G, Zuber V, Cross AJ, Burrows K, Lopez DS, Key TJ, Travis RC, Perez-Cornago A, Hunter DJ, van Duijnhoven FJB, Albanes D, Arndt V, Berndt SI, Bézieau S, Bishop DT, Boehm J, Brenner H, Burnett-Hartman A, Campbell PT, Casey G, Castellví-Bel S, Chan AT, Chang-Claude J, de la Chapelle A, Figueiredo JC, Gallinger SJ, Giles GG, Goodman PJ, Gsur A, Hampe J, Hampel H, Hoffmeister M, Jenkins MA, Keku TO, Kweon SS, Larsson SC, Le Marchand L, Li CI, **Li L**, Lindblom A, Martín V, Milne RL, Moreno V, Nan H, Nassir R, Newcomb PA, Offit K, Pharoah PDP, Platz EA, Potter JD, Qi L, Rennert G, Sakoda LC, Schafmayer C, Slattery ML, Sneltselaar L, Schenk J, Thibodeau SN, Ulrich CM, Van Guelpen B, Harlid S, Visvanathan K, Vodickova L, Wang H, White E, Wolk A, Woods MO, Wu AH, Zheng W, Bueno-de-Mesquita B, Boutron-Ruault



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[The clear and persistent impact of air pollution on chronic respiratory diseases: a call for interventions.](#) Annesi-Maesano I, Forastiere F, **Balmes J**, Garcia E, **Harkema J**, Holgate S, Kelly F, Khreis H, Hoffmann B, Maesano CN, McConnell R, **Peden D**, Pinkerton K, Schikowski T, Thurston G, Van Winkle LS, Carlsten C. *Eur Respir J.* 2021 Mar 18;57(3):2002981. doi: 10.1183/13993003.02981-2020. Print 2021 Mar. PMID: 33737377 No abstract available.

[Extracellular vesicle microRNA in early versus late pregnancy with birth outcomes in the MADRES study.](#) Howe CG, Foley HB, Kennedy EM, **Eckel SP**, Chavez TA, Faham D, Grubbs BH, Al-Marayati L, Lerner D, Suglia S, Bastain TM, Marsit CJ, Breton CV. *Epigenetics.* 2021 Mar 18:1-17. doi: 10.1080/15592294.2021.1899887. Online ahead of print. PMID: 33734019

[Effects of tumor necrosis factor \(TNF\) gene polymorphisms on the association between smoking and lung function among workers in swine operations.](#) Gao Z, Dosman JA, Rennie DC, **Schwartz DA**, Yang IV, Beach J, Senthilselvan A. *J Toxicol Environ Health A.* 2021 Mar 15:1-17. doi: 10.1080/15287394.2021.1896404. Online ahead of print. PMID: 33715603

[Association between Spirometric Parameters and Depressive Symptoms in New Mexico Uranium Workers.](#) Sharma S, Shore XW, Mohite S, Myers O, Kesler D, Vlahovich K, **Sood A**. *Southwest J Pulm Crit Care.* 2021;22(2):58-68. doi: 10.13175/swjpc015-20. Epub 2021 Feb 13. PMID: 33664988 **Free PMC article.**

[Inflammation biomarkers associated with arsenic exposure by drinking water and respiratory outcomes in indigenous children from three Yaqui villages in southern Sonora, México.](#) Vega-Millán CB, Dévora-Figueroa AG, Burgess JL, **Beamer PI**, Furlong M, Lantz RC, Meza-Figueroa D, O'Rourke MK, García-Rico L, Meza-Escalante ER, Balderas-Cortés JJ, Meza-Montenegro MM. *Environ Sci Pollut Res Int.* 2021 Mar 1:1-12. doi: 10.1007/s11356-021-13070-x. Online ahead of print. PMID: 33650048 **Free PMC article.**

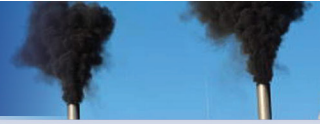
[Mixtures modeling identifies chemical inducers versus repressors of toxicity associated with wildfire smoke.](#) Rager JE, Clark J, Eaves LA, Avula V, Niehoff NM, Kim YH, **Jaspers I**, Gilmour MI. *Sci Total Environ.* 2021 Feb 10;775:145759. doi: 10.1016/j.scitotenv.2021.145759. Online ahead of print. PMID: 33611182 **Free article.**

[Beryllium-specific CD4+ T cells induced by chemokine neoantigens perpetuate inflammation.](#) Falta MT, Crawford JC, Tinega AN, Landry LG, Crawford F, Mack DG, Martin AK, Atif SM, **Li L**, Santos RG, Nakayama M, Kappler JW, **Maier LA**, Thomas PG, Pinilla C, Fontenot AP. *J Clin Invest.* 2021 Feb 25:144864. doi: 10.1172/JCI144864. Online ahead of print. PMID: 33630763 **Free article.**

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 May;287:103638. doi: 10.1016/j.resp.2021.103638. Epub 2021 Feb 11. PMID: 33581294

[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 **Free PMC article.**

Per- and polyfluoroalkyl substances and calcifications of the coronary and aortic arteries in adults with prediabetes: Results from the diabetes prevention program outcomes study.

Osorio-Yáñez C, Sanchez-Guerra M, Cardenas A, Lin PD, Hauser R, **Gold DR**, Kleinman KP, Hivert MF, Fleisch AF, Calafat AM, Webster TF, Horton ES, Oken E. *Environ Int.* 2021 Jun;151:106446. doi: 10.1016/j.envint.2021.106446. Epub 2021 Feb 22. PMID: 33631604 **Free article.**

Academic Medicine

The American Thoracic Society Leadership in A Year Like No Other.

Celedón JC; Executive Committee of the American Thoracic Society. *Am J Respir Crit Care Med.* 2021 Mar 22. doi: 10.1164/rccm.202103-0640ED. Online ahead of print. PMID: 33749544 No abstract available.

Dysregulation of Pyruvate Kinase M2 Promotes Inflammation in a Mouse Model of Obese Allergic Asthma.

Manuel AM, van de Wetering C, MacPherson M, Erickson C, Murray C, Aboushousha R, van der Velden J, Dixon AE, Poynter ME, Irvin CG, Taatjes DJ, van der Vliet A, Anathy V, **Janssen-Heininger YMW**. *Am J Respir Cell Mol Biol.* 2021 Mar 4. doi: 10.1165/rcmb.2020-0512OC. Online ahead of print. PMID: 33662229

TRPA1: An asthma target with a zing.

Jordt SE. *J Exp Med.* 2021 Apr 5;218(4):e20202507. doi: 10.1084/jem.20202507. PMID: 33625497 **Free article.**

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

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

Added benefits of early detection of other diseases on low-dose CT screening.

Yip R, Jirapatnakul A, Hu M, Chen X, Han D, Ma T, Zhu Y, **Salvatore MM**, Margolies LR, Yankelevitz DF, Henschke CI. *Transl Lung Cancer Res.* 2021 Feb;10(2):1141-1153. doi: 10.21037/tlcr-20-746. PMID: 33718052 **Free PMC article.** Review.

Novel LC-MS-TOF method to detect and quantify ascorbic and uric acid simultaneously in different biological matrices.

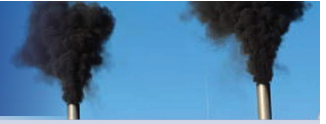
Borras E, Schrupf L, Stephens N, Weimer BC, Davis CE, **Schelegle ES**. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2021 Apr 1;1168:122588. doi: 10.1016/j.jchromb.2021.122588. Epub 2021 Feb 16. PMID: 33690092

Aerosol generation with various approaches to oxygenation in healthy volunteers in the emergency department.

Pearce E, **Campen MJ**, Baca JT, Blewett JP, Femling J, Hanson DT, Kraai E, Muttill P, Wolf B, Lauria M, Braude D. *J Am Coll Emerg Physicians Open.* 2021 Mar 2;2(2):e12390. doi: 10.1002/emp2.12390. eCollection 2021 Apr. PMID: 33718924 **Free PMC article.**

Perls' Prussian Blue Stains of Lung Tissue, Bronchoalveolar Lavage, and Sputum.

Ghio AJ, Roggli VL. *J Environ Pathol Toxicol Oncol.* 2021;40(1):1-15. doi: 10.1615/JEnvironPatholToxicolOncol.2020036292. PMID: 33639069



[Using Hyperpolarized \$^{129}\text{Xe}\$ Gas Exchange MRI to Model the Regional Airspace, Membrane and Capillary Contributions to Diffusing Capacity.](#)

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

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[Exposure to violence, chronic stress, nasal DNA methylation, and atopic asthma in children.](#)

Yan Q, Forno E, Cardenas A, Qi C, Han YY, Acosta-Pérez E, Kim S, Zhang R, Boutaoui N, Canino G, Vonk JM, Xu CJ, Chen W, Marsland A, Oken E, Gold DR, Koppelman GH, **Celedón JC**. *Pediatr Pulmonol*. 2021 Mar 22. doi: 10.1002/ppul.25372. Online ahead of print. PMID: 33751861

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

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[Exposure to violence, chronic stress, nasal DNA methylation, and atopic asthma in children.](#)

Yan Q, Forno E, Cardenas A, Qi C, Han YY, Acosta-Pérez E, Kim S, Zhang R, Boutaoui N, Canino G, Vonk JM, Xu CJ, Chen W, Marsland A, Oken E, **Gold DR**, Koppelman GH, Celedón JC. *Pediatr Pulmonol*. 2021 Mar 22. doi: 10.1002/ppul.25372. Online ahead of print. PMID: 33751861

[Childhood patterns of overweight and wheeze and subsequent risk of current asthma and obesity in adolescence.](#)

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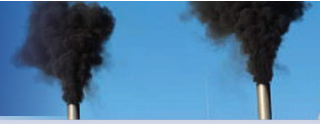
[Application of data science methods to identify school and home risk factors for asthma and allergy-related symptoms among children in New York.](#)

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Climate Change, Public Health and Policy

[The EPA's "Strengthening Transparency in Pivotal Science" Rule: Don't Let History Repeat Itself.](#)

Goobie GC, Rice MB, **Carlsten C**. *Ann Am Thorac Soc*. 2021 Mar 22. doi: 10.1513/AnnalsATS.202103-259VP. Online ahead of print. PMID: 33752570 No abstract available.



[The clear and persistent impact of air pollution on chronic respiratory diseases: a call for interventions.](#)

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[Establishing a university food pantry: growth, changes in shopper characteristics and recommendations.](#)

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[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 20;397(10275):705-753. doi: 10.1016/S0140-6736(20)32545-9. Epub 2021 Feb 11. PMID: 33581802 Review. No abstract available.

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[The EPA's "Strengthening Transparency in Pivotal Science" Rule: Don't Let History Repeat Itself.](#)

Goobie GC, **Rice MB**, Carlsten C. *Ann Am Thorac Soc*. 2021 Mar 22. doi: 10.1513/AnnalsATS.202103-259VP. Online ahead of print. PMID: 33752570 No abstract available.

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

[E-Cigarettes and Cardiopulmonary Health.](#)

Tarran R, Barr RG, Benowitz NL, Bhatnagar A, Chu HW, Dalton P, Doerschuk CM, Drummond MB, Gold DR, Goniewicz ML, Gross ER, Hansel NN, Hopke PK, Kloner RA, Mikheev VB, Neczypor EW, **Pinkerton KE**, Postow L, Rahman I, **Samet JM**, Salathe M, Stoney CM, Tsao PS, Widome R, Xia T, Xiao D, Wold LE. *Function (Oxf)*. 2021 Feb 8;2(2):zqab004. doi: 10.1093/function/zqab004. eCollection 2021. PMID: 33748758 Review.

[E-Cigarette Flavoring Chemicals Induce Cytotoxicity in HepG2 Cells.](#)

Rickard BP, Ho H, Tiley JB, **Jaspers I**, Brouwer KLR. *ACS Omega*. 2021 Mar 2;6(10):6708-6713. doi: 10.1021/acsomega.0c05639. eCollection 2021 Mar 16. PMID: 33748584 **Free PMC article.**

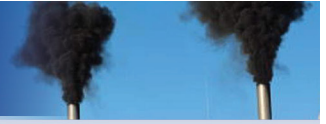
[Defining Resilience to Smoking Related Lung Disease: A Modified Delphi Approach from SPIROMICS.](#)

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Tajara EH, Andrew AS, Clifford GM, Lazarus P, Grankvist K, Johansson M, Arnold S, Melander O, Brunström H, Boccia S, Cadoni G, Timens W, Obeidat M, Xiao X, Houlston RS, Hung RJ, Brennan P. *PLoS Genet.* 2021 Mar 5;17(3):e1009254. doi: 10.1371/journal.pgen.1009254. eCollection 2021 Mar. PMID: 33667223 **Free article.**

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[MARCKS cooperates with NKAP to activate NF- \$\kappa\$ B signaling in smoke-related lung cancer.](#)

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[An international expert opinion statement on the utility of PET/MR for imaging of skeletal metastases.](#)

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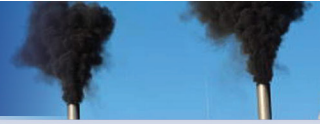
[Association between aspirin use and lung cancer incidence depends on high-frequency use, bodyweight, and age in U.S. adults.](#)

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[Association between smoking history and tumor mutation burden in advanced non-small cell lung cancer.](#)

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[A Population-Based Feasibility Study of Occupation and Thoracic Malignancies in New Mexico.](#)

Pestak CR, Boyce TW, Myers OB, Hopkins' LO, Wiggins CL, Wissore BR, **Sood A**, Cook LS. *Southwest J Pulm Crit Care.* 2021;22(1):23-25. doi: 10.13175/swjpc067-20. Epub 2021 Aug 13. PMID: 33614198 **Free PMC article.**

[Metabolomic profiling for second primary lung cancer: A pilot case-control study.](#)

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Sarcoidosis, Interstitial Lung Disease and Transplant

[Outcomes of Patients With Interstitial Lung Disease Receiving Programmed Cell Death 1 Inhibitors: A Retrospective Case Series.](#)

Dobre IA, Frank AJ, D'Silva KM, **Christiani DC**, Okin D, Sharma A, Montesi SB. *Clin Lung Cancer.* 2021 Feb 4:S1525-7304(21)00017-6. doi: 10.1016/j.clc.2021.01.014. Online ahead of print. PMID: 33663958

[Latent traits of lung tissue patterns in former smokers derived by dual channel deep learning in computed tomography images.](#)

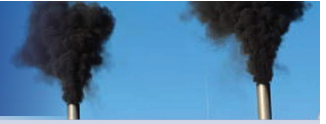
Li F, Choi J, Zou C, Newell JD Jr, Comellas AP, Lee CH, Ko H, Barr RG, Bleecker ER, Cooper CB, Abtin F, Barjaktarevic I, Couper D, Han M, Hansel NN, **Kanner RE**, Paine R 3rd, Kazerooni EA, Martinez FJ, O'Neal W, Rennard SI, Smith BM, Woodruff PG, Hoffman EA, Lin CL. *Sci Rep.* 2021 Mar 1;11(1):4916. doi: 10.1038/s41598-021-84547-5. PMID: 33649381 **Free PMC article.**

Cellular Mechanisms

[Pharmacoepidemiology: A Time for a New Multidisciplinary Approach to Precision Medicine.](#)

Issa AM, Carleton B, Gerhard T, Filipowski KK, **Freedman AN**, Kimmel S, Liu G, Longo C, Maitland-van der Zee AH, Sansbury L, Zhou W, Bartlett G. *Pharmacoepidemiol Drug Saf.* 2021 Mar 13. doi: 10.1002/pds.5226. Online ahead of print. PMID: 33715268 Review.

[Healthcare Process Modeling to Phenotype Clinician Behaviors for Exploiting the Signal Gain of Clinical Expertise \(HPM-ExpertSignals\): Development and evaluation of a conceptual framework.](#)



Rossetti SC, Knaplund C, Albers D, Dykes PC, Kang MJ, Korach TZ, Zhou L, Schnock K, Garcia J, **Schwartz J**, Fu LH, Klann JG, Lowenthal G, Cato K.J *Am Med Inform Assoc*. 2021 Feb 24:ocab006. doi: 10.1093/jamia/ocab006. Online ahead of print.PMID: 33624765

[Rapid Induction of Pulmonary Inflammation, Autoimmune Gene Expression, and Ectopic Lymphoid Neogenesis Following Acute Silica Exposure in Lupus-Prone Mice.](#)

Chauhan PS, **Wagner JG**, Benninghoff AD, Lewandowski RP, Favor OK, Wierenga KA, Gilley KN, Ross EA, **Harkema JR**, Pestka JJ.*Front Immunol*. 2021 Feb 23;12:635138. doi: 10.3389/fimmu.2021.635138. eCollection 2021.PMID: 33732257 **Free PMC article.**

[Sprouty2 positively regulates T cell function and airway inflammation through regulation of CSK and LCK kinases.](#)

Sripada A, Sirohi K, Michalec L, Guo L, McKay JT, Yadav S, Verma M, Good J, **Rollins D**, Gorska MM, Alam R.*PLoS Biol*. 2021 Mar 8;19(3):e3001063. doi: 10.1371/journal.pbio.3001063. eCollection 2021 Mar.PMID: 33684096 **Free article.**

[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.

[Effects of metal nanoparticles on tight junction-associated proteins via HIF-1 \$\alpha\$ /miR-29b/MMPs pathway in human epidermal keratinocytes.](#)

Yuan J, Zhang Y, Zhang Y, Mo Y, **Zhang Q**.*Part Fibre Toxicol*. 2021 Mar 19;18(1):13. doi: 10.1186/s12989-021-00405-2.PMID: 33740985 **Free PMC article.**

Extrapulmonary Medicine

[Development of a fully automated surgical site infection detection algorithm for use in cardiac and orthopedic surgery research.](#)

Suzuki H, Clore GS, Perencevich EN, Hockett-Sherlock SM, Goto M, Nair R, Branch-Elliman W, Richardson KK, Gupta K, **Beck BF**, Alexander B, Balkenende EC, Schweizer ML.*Infect Control Hosp Epidemiol*. 2021 Feb 23:1-6. doi: 10.1017/ice.2020.1387. Online ahead of print.PMID: 33618788

[Symptom Burden and Medication Use Among Patients With Nontuberculous Mycobacterial Lung Disease.](#)

Pravosud V, **Mannino DM**, Prieto D, **Zhang Q**, Choate R, Malanga E, Aksamit TR.*Chronic Obstr Pulm Dis*. 2021 Feb 19. doi: 10.15326/jcopdf.2020.0184. Online ahead of print.PMID: 33610137 **Free article.**

[Individual and Cumulative Health Afflictions Are Associated with Greater Impairment in Physical and Mental Function in Former Professional American Style Football Players.](#)

Tenforde AS, Cortez B, Coughlan-Gifford E, Grashow R, Baker J, Baggish A, Pascual-Leone A, Nadler LM, **Speizer FE**, Taylor HA, Weisskopf MG, Zafonte R.*PM R*. 2021 Feb 28. doi: 10.1002/pmrj.12581. Online ahead of print.PMID: 33644969

Updates from Terrorism and Inhalation Disasters (TID) Section

Registration is open for 2021 ATS International Conference: [ATS Conference 2021 - Registration is now open! \(thoracic.org\)](https://www.thoracic.org/conferences/2021/)



Highlights of TID Section at 2021 ATS International Conference:

TID Section is very proud to hold its first thematic poster session on “World Trade Center and Beyond” to commemorate the 20th anniversary of 9-11.

TID Section is also contributing to two joint scientific symposia –

1. “Military Deployment Respiratory Health: insights into potential exposures, clinical findings, and mechanisms”
2. “Occupational COVID-19”.

Good 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 COVID-19 Resources

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

Featured publication of the month

A TRPA1 inhibitor suppresses neurogenic inflammation and airway contraction for asthma treatment

Balestrini A, Joseph V, Dourado M, Reese RM, Shields SD, Rougé L, Bravo DD, Chernov-Rogan T, Austin CD, Chen H, Wang L, Villemure E, Shore DGM, Verma VA, Hu B, Chen Y, Leong L, Bjornson C, Hötzel K, Gogineni A, Lee WP, Suto E, Wu X, Liu J, Zhang J, Gandham V, Wang J, Payandeh J, Ciferri C, Estevez A, Arthur CP, Kortmann J, Wong RL, Heredia JE, Doerr J, Jung M, Vander Heiden JA, Roose-Girma M, Tam L, Barck KH, Carano RAD, Ding HT, Brillantes B, Tam C, Yang X, Gao SS, Ly JQ, Liu L, Chen L, Liederer BM, Lin JH, Magnuson S, Chen J, Hackos DH, Elstrott J, Rohou A, Safina BS, Volgraf M, Bauer RN, Riol-Blanco L. A TRPA1 inhibitor suppresses neurogenic inflammation and airway contraction for asthma treatment. *J Exp Med.* 2021 Apr 5;218(4):e20201637. doi: 10.1084/jem.20201637. PMID: 33620419; PMCID: PMC7918756.

Abstract: Despite the development of effective therapies, a substantial proportion of asthmatics continue to have uncontrolled symptoms, airflow limitation, and exacerbations. Transient receptor potential cation channel member A1 (TRPA1) agonists are elevated in human asthmatic airways, and in rodents, TRPA1 is involved in the induction of airway inflammation and hyperreactivity. Here, the discovery and early clinical development of GDC-0334, a highly potent, selective, and orally bioavailable TRPA1 antagonist, is described. GDC-0334 inhibited TRPA1 function on airway smooth muscle and sensory neurons, decreasing edema, dermal blood flow (DBF), cough, and allergic airway inflammation in several preclinical species. In a healthy volunteer Phase 1 study, treatment with GDC-0334 reduced TRPA1 agonist-induced DBF, pain, and itch, demonstrating GDC-0334 target engagement in humans. These data provide therapeutic rationale for evaluating TRPA1 inhibition as a clinical therapy for asthma.

Congratulations to all authors!!!

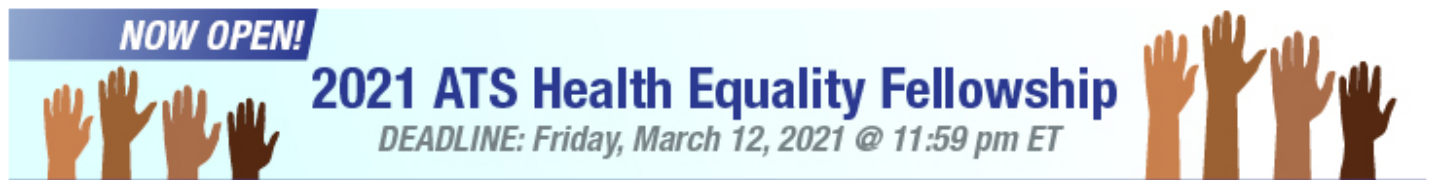
Funding opportunities

NIH CounterACT program for the first introduces R21 grant opportunity for Early State 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.



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DEADLINE: Friday, March 12, 2021 @ 11:59 pm ET

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

Relevant publications for TID Section

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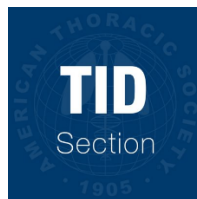
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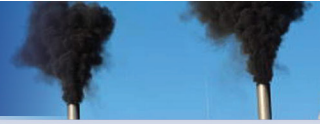
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TID section is soliciting ideas for putting together podcasts, webinars, and journal clubs. Please contact Satya Achanta, DVM, PhD, DABT (satya.achanta@duke.edu), Web Director of TID section, if you are interested to lead any of these activities. Also,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



Member Announcements

Please email us with any additional announcements that you would like included

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. 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. <https://www.facebook.com/groups/211174059563881/>

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 clicking on the link <https://www.nytimes.com/news-event/coronavirus?action=click&module=Spotlight&pgtype=Homepage> 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 <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>.

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.

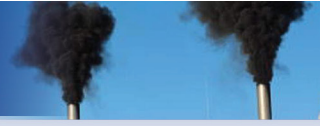
Which can be accessed at <https://www.thoracic.org/covid/index.php>

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:

<https://www.thoracic.org/covid/index.php> - 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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