

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 **December 2020** 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

Association of inhaled and systemic corticosteroid use with Coronavirus Disease 2019 (COVID-19) test positivity in patients with chronic pulmonary diseases.

Liao SY, Petrache I, Fingerlin TE, **Maier LA**. *Respir Med*. 2020 Nov 28;176:106275. doi: 10.1016/j.rmed.2020.106275. Online ahead of print. PMID: 33276252 **Free PMC article**.

Temporal and spatial heterogeneity of host response to SARS-CoV-2 pulmonary infection.

Desai N, Neyaz A, Szabolcs A, Shih AR, Chen JH, Thapar V, Nieman LT, Solovyov A, **Mehta A**, Lieb DJ, Kulkarni AS, Jaicks C, Xu KH, Raabe MJ, Pinto CJ, Juric D, Chebib I, Colvin RB, Kim AY, Monroe R, Warren SE, Danaher P, Reeves JW, Gong J, Rueckert EH, Greenbaum BD, Hacoheh N, Lagana SM, Rivera MN, Sholl LM, Stone JR, Ting DT, Deshpande V. *Nat Commun*. 2020 Dec 9;11(1):6319. doi: 10.1038/s41467-020-20139-7. PMID: 33298930 **Free PMC article**.

Pneumothorax rate in intubated patients with COVID-19.

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

Improving Testing for COVID-19 for the Rural Southwestern American Indian Tribes.

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

Wildland firefighter exposure to smoke and COVID-19: A new risk on the fire line.

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

[A prospective study of 12-week respiratory outcomes in COVID-19-related hospitalisations.](#)

Shah AS, Wong AW, Hague CJ, Murphy DT, Johnston JC, Ryerson CJ, **Carlsten C**. *Thorax*. 2020 Dec 3;thoraxjnl-2020-216308. doi: 10.1136/thoraxjnl-2020-216308. Online ahead of print. PMID: 33273023

COVID-19 Investigational Treatments in Use Among Hospitalized Patients Identified Through the US Coronavirus Disease 2019-Associated Hospitalization Surveillance Network, March 1-June 30, 2020.

Acosta AM, Mathis AL, Budnitz DS, Geller AI, Chai SJ, Alden NB, Meek J, Anderson EJ, **Ryan P**, Kim S, Como-Sabetti K, Torres S, Dufort E, Bennett NM, Billing LM, Sutton M, Keipp Talbot H, George A, Pham H, Hall AJ, Fry A, Garg S, Kim L. *Open Forum Infect Dis*. 2020 Nov 9;7(11):ofaa528. doi: 10.1093/ofid/ofaa528. eCollection 2020 Nov. PMID: 33274249 **Free PMC article**.

The use of nebulized pharmacotherapies during the COVID-19 pandemic.



Sethi S, Barjaktarevic IZ, **Tashkin DP**. *Ther Adv Respir Dis*. 2020 Jan-Dec;14:1753466620954366. doi: 10.1177/1753466620954366. PMID: 33167796 **Free PMC article**. Review.

Characteristics of Adults aged 18-49 Years without Underlying Conditions Hospitalized with Laboratory-Confirmed COVID-19 in the United States, COVID-NET - March-August 2020.

Owusu D, Kim L, O'Halloran A, Whitaker M, Piasecki AM, Reingold A, Alden NB, Maslar A, Anderson EJ, **Ryan PA**, Kim S, Como-Sabetti K, Hancock EB, Muse A, Bennett NM, Billing LM, Sutton M, Talbot K, Ortega J, Brammer L, Fry AM, Hall AJ, Garg S; COVID-NET Surveillance Team. *Clin Infect Dis*. 2020 Dec 3:ciaa1806. doi: 10.1093/cid/ciaa1806. Online ahead of print. PMID: 33270136

Clinical Outcomes Of A COVID-19 Vaccine: Implementation Over Efficacy.

Paltiel AD, **Schwartz JL**, Zheng A, Walensky RP. *Health Aff (Millwood)*. 2020 Nov 19:101377hlthaff202002054. doi: 10.1377/hlthaff.2020.02054. Online ahead of print. PMID: 33211536

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*. 2020 Dec 5;200:106413. doi: 10.1016/j.clineuro.2020.106413. Online ahead of print. PMID: 33338825 **Free PMC article**.

Baricitinib plus Remdesivir for Hospitalized Adults with Covid-19.

Kalil AC, Patterson TF, **Mehta AK**, Tomashek KM, Wolfe CR, Ghazaryan V, Marconi VC, Ruiz-Palacios GM, Hsieh L, Kline S, Tapson V, Iovine NM, Jain MK, Sweeney DA, El Sahly HM, Branche AR, Regalado Pineda J, Lye DC, Sandkovsky U, Luetkemeyer AF, Cohen SH, Finberg RW, Jackson PEH, Taiwo B, Paules CI, Arguinchona H, Goepfert P, Ahuja N, Frank M, Oh MD, Kim ES, Tan SY, Mularski RA, Nielsen H, Ponce PO, Taylor BS, Larson L, Roupheal NG, Saklawi Y, Cantos VD, Ko ER, Engemann JJ, Amin AN, Watanabe M, Billings J, Elie MC, Davey RT, Burgess TH, Ferreira J, Green M, Makowski M, Cardoso A, de Bono S, Bonnett T, Proschan M, Deye GA, Dempsey W, Nayak SU, Dodd LE, Beigel JH. *N Engl J Med*. 2020 Dec 11:NEJMoa2031994. doi: 10.1056/NEJMoa2031994. Online ahead of print. PMID: 33306283 **Free PMC article**.

Acute myocardial infarction secondary to COVID-19 infection: A case report and review of the literature.

Capaccione KM, Leb JS, D'souza B, Utukuri P, **Salvatore MM**. *Clin Imaging*. 2020 Nov 14;72:178-182. doi: 10.1016/j.clinimag.2020.11.030. Online ahead of print. PMID: 33296828 **Free PMC article**.

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

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

Asthma and Allergy

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

Israel E, Cardet JC, Carroll JK, Fuhlbrigge AL, Pace WD, Maher NE, She L, Rockhold FW, Fagan M, Forth VE, Hernandez PA, Manning BK, Rodriguez-Louis J, Shields JB, Coyne-Beasley T, Kaplan BM, Rand CS, Morales-Cosme W, Wechsler ME, Wisnivesky JP, **White M**, Yawn BP, McKee MD, Busse PJ, Kaelber DC, Nazario S, Hernandez ML, Apter AJ, Chang KL, Pinto-Plata V, Stranges PM, Hurley LP, Trevor J, Casale TB,



Chupp G, Riley IL, Shenoy K, Pasarica M, Calderon-Candelario RA, Tapp H, Baydur A. *Contemp Clin Trials*. 2020 Dec 11:106246. doi: 10.1016/j.cct.2020.106246. Online ahead of print. PMID: 33316456

[The Role of Extreme Weather and Climate-Related Events on Asthma Outcomes.](#)

Rorie A, **Poole JA**. *Immunol Allergy Clin North Am*. 2021 Feb;41(1):73-84. doi: 10.1016/j.iac.2020.09.009. Epub 2020 Nov 5. PMID: 33228874 Review.

[Preventing asthma in high risk kids \(PARK\) with omalizumab: Design, rationale, methods, lessons learned and adaptation.](#)

Phipatanakul W, Mauger DT, Guilbert TW, Bacharier LB, Durrani S, Jackson DJ, Martinez FD, Fitzpatrick AM, Cunningham A, Kunsel S, Wheatley LM, Bauer C, Davis CM, Geng B, Kloepfer KM, Lapin C, Liu AH, Pongracic JA, Teach SJ, Chmiel J, Gaffin JM, Greenhawt M, Gupta MR, **Lai PS**, Lemanske RF, Morgan WJ, Sheehan WJ, Stokes J, Thorne PS, Oettgen HC, Israel E; PARK Study Team. *Contemp Clin Trials*. 2020 Nov 23:106228. doi: 10.1016/j.cct.2020.106228. Online ahead of print. PMID: 33242697

[Serum insulin-like growth factor-1, asthma, and lung function among British adults.](#)

Han YY, Yan Q, Chen W, Forno E, **Celedón JC**. *Ann Allergy Asthma Immunol*. 2020 Dec 11:S1081-1206(20)31243-6. doi: 10.1016/j.anai.2020.12.005. Online ahead of print. PMID: 33316372

[Altered transcriptional and chromatin responses to rhinovirus in bronchial epithelial cells from adults with asthma.](#)

Helling BA, Sobreira DR, Hansen GT, Sakabe NJ, Luo K, Billstrand C, Laxman B, Nicolae RI, Nicolae DL, Bochkov YA, Gern JE, Nobrega MA, White SR, Ober C. *Commun Biol*. 2020 Nov 13;3(1):678. doi: 10.1038/s42003-020-01411-4. PMID: 33188283 **Free PMC article.**

[Integrated-omics endotyping of infants with rhinovirus bronchiolitis and risk of childhood asthma.](#)

Raita Y, Camargo CA Jr, Bochkov YA, **Celedón JC**, Gern JE, Mansbach JM, Rhee EP, Freishtat RJ, Hasegawa K. *J Allergy Clin Immunol*. 2020 Nov 13:S0091-6749(20)31585-2. doi: 10.1016/j.jaci.2020.11.002. Online ahead of print. PMID: 33197460

[Asthma and its relationship to mitochondrial copy number: Results from the Asthma Translational Genomics Collaborative \(ATGC\) of the Trans-Omics for Precision Medicine \(TOPMed\) program.](#)

Cocco MP, White E, Xiao S, Hu D, Mak A, Sleiman P, Yang M, Bobbitt KR, Gui H, Levin AM, Hochstadt S, Whitehouse K, Rynkowski D, Barczak AJ, Abecasis G, Blackwell TW, Kang HM, Nickerson DA, Germer S, Ding J, Lanfear DE, **Gilliland F**, Gauderman WJ, Kumar R, Erle DJ, Martinez F, Hakonarson H, Burchard EG, Williams LK. *PLoS One*. 2020 Nov 25;15(11):e0242364. doi: 10.1371/journal.pone.0242364. eCollection 2020. PMID: 33237978 **Free PMC article.**

COPD, Chronic Bronchitis

[Prevalence and Population Attributable Risk for Chronic Airflow Obstruction in a Large Multinational Study.](#)

Burney P, Patel J, Minelli C, Gnatiuc L, Amaral AFS, Kocabaş A, Cherkaski HH, Gulsvik A, Nielsen R, Bateman E, Jithoo A, Mortimer K, Sooronbaev TM, Lawin H, Nejari C, Elbiaze M, El Rhazi K, Zheng JP, Ran P, Welte T, Obaseki D, Erhabor G, Elsony A, Osman NB, Ahmed R, Nizankowska-Mogilnicka E, Mejza F, Mannino DM, Bárbara C, Wouters EFM, Idolor LF, Loh LC, Rashid A, Juvekar S, Gislason T, Al Ghobain M, Studnicka M, Harrabi I, Denguezli M, Koul PA, Jenkins C, Marks G, Jögi R, Hafizi H, Janson C, Tan WC, Aquart-Stewart A, Mbatchou B, Nafees A, Gunasekera K, Seemungal T, Padukudru Anand M, Enright P,



Vollmer WM, Blangiardo M, Elfadaly FG, **Buist AS**. *Am J Respir Crit Care Med*. 2020 Nov 10. doi: 10.1164/rccm.202005-1990OC. Online ahead of print. PMID: 33171069

Relative contributions of family history and a polygenic risk score on COPD and related outcomes: COPDGene and ECLIPSE studies.

Moll M, Lutz SM, Ghosh AJ, Sakornsakolpat P, Hersh CP, Beaty TH, Dudbridge F, Tobin MD, Mittleman MA, **Silverman EK**, Hobbs BD, Cho MH. *BMJ Open Respir Res*. 2020 Nov;7(1):e000755. doi: 10.1136/bmjresp-2020-000755. PMID: 33239407 **Free PMC article**.

Formoterol for the Treatment of Chronic Obstructive Pulmonary Disease.

Tashkin DP. *Int J Chron Obstruct Pulmon Dis*. 2020 Nov 27;15:3105-3122. doi: 10.2147/COPD.S273497. eCollection 2020. PMID: 33273813 **Free PMC article**. Review.

Progression of Emphysema and Small Airways Disease in Cigarette Smokers.

Pompe E, Moore CM, Mohamed Hoesein FAA, de Jong PA, Charbonnier JP, Han MK, Humphries SM, Hatt CR, Galbán CJ, Silverman EK, Crapo JD, Washko GR, **Regan EA**, Make B, Strand M, Lammers JJ, van Rikxoort EM, Lynch DA; COPDGene investigators. *Chronic Obstr Pulm Dis*. 2020 Dec 2. doi: 10.15326/jcopdf.2020.0140. Online ahead of print. PMID: 33290645 **Free article**.

Markers of disease activity in COPD: an 8-year mortality study in the ECLIPSE cohort.

Celli B, Locantore N, Yates JC, Bakke P, Calverley PMA, Crim C, Coxson HO, Lomas DA, MacNee W, Miller BE, Mullerova H, Rennard SI, **Silverman EK**, Wouters E, Tal-Singer R, Agusti A, Vestbo J; Evaluation of COPD Longitudinally to Identify Predictive Surrogate Endpoints (ECLIPSE) Investigators. *Eur Respir J*. 2020 Dec 10;2001339. doi: 10.1183/13993003.01339-2020. Online ahead of print. PMID: 33303557

It's Not Just a Smoking-related Disease: Outdoor Pollution May Increase Risk of COPD.

Garcia E, **Rice MB**. *Am J Respir Crit Care Med*. 2020 Dec 4. doi: 10.1164/rccm.202011-4168ED. Online ahead of print. PMID: 33275084 No abstract available.

Occupational Injuries and Environmental Exposures

Multiple breath washout: A noninvasive tool for identifying lung disease in symptomatic military deployers.

Zell-Baran LM, Krefft SD, Moore CM, Wolff J, Meehan R, **Rose CS**. *Respir Med*. 2020 Dec 5;176:106281. doi: 10.1016/j.rmed.2020.106281. Online ahead of print. PMID: 33340829

Cardiopulmonary Impact of Particulate Air Pollution in High-Risk Populations: JACC State-of-the-Art Review.

Newman JD, Bhatt DL, Rajagopalan S, **Balmes JR**, Brauer M, Breysse PN, Brown AGM, Carnethon MR, Cascio WE, Collman GW, Fine LJ, Hansel NN, Hernandez A, Hochman JS, Jerrett M, Joubert BR, Kaufman JD, Malik AO, Mensah GA, Newby DE, Peel JL, Siegel J, Siscovick D, Thompson BL, Zhang J, Brook RD. *J Am Coll Cardiol*. 2020 Dec 15;76(24):2878-2894. doi: 10.1016/j.jacc.2020.10.020. PMID: 33303078 Review.

Association of quantitative CT lung density measurements and lung function decline in World Trade Center workers.

Liu X, Reeves AP, Antoniak K, San José Estépar R, Doucette JT, Jeon Y, Weber J, Xu D, Celedón JC, **de la Hoz RE**. *Clin Respir J*. 2020 Nov 26. doi: 10.1111/crj.13313. Online ahead of print. PMID: 33244876



Repetitive Ozone Exposures and Evaluation of Pulmonary Inflammation and Remodeling in Diabetic Mouse Strains.

Wagner JG, Barkauskas CE, Vose A, Lewandowski RP, Harkema JR, Tighe RM. *Environ Health Perspect.* 2020 Nov;128(11):117009. doi: 10.1289/EHP7255. Epub 2020 Nov 30. PMID: 33253011 **Free PMC article.**

Association between toenail zinc concentrations and incidence of asthma among American young adults: The CARDIA study.

Tang W, Xun P, Chen C, Lu L, Sood A, Shikany JM, Kahe K. *J Trace Elem Med Biol.* 2020 Nov 12;64:126683. doi: 10.1016/j.jtemb.2020.126683. Online ahead of print. PMID: 33249373

Mortality among uranium miners in North America and Europe: the Pooled Uranium Miners Analysis (PUMA). Richardson DB, Rage E, Demers PA, Do MT, DeBono N, Fenske N, Deffner V, Kreuzer M, Samet J, Wiggins C, Schubauer-Berigan MK, Kelly-Reif K, Tomasek L, Zablotska LB, Laurier D. *Int J Epidemiol.* 2020 Nov 24;dyaa195. doi: 10.1093/ije/dyaa195. Online ahead of print. PMID: 33232447

Framework for a Community Health Observing System for the Gulf of Mexico Region: Preparing for Future Disasters.

Sandifer P, Knapp L, Lichtveld M, Manley R, Abramson D, Caffey R, Cochran D, Collier T, Ebi K, Engel L, Farrington J, Finucane M, Hale C, Halpern D, Harville E, Hart L, Hswen Y, Kirkpatrick B, McEwen B, Morris G, Orbach R, Palinkas L, Partyka M, Porter D, Prather AA, Rowles T, Scott G, Seeman T, Solo-Gabriele H, Svendsen E, Tincher T, Trtanj J, Walker AH, Yehuda R, Yip F, Yoskowitz D, Singer B. *Front Public Health.* 2020 Oct 15;8:578463. doi: 10.3389/fpubh.2020.578463. eCollection 2020. PMID: 33178663 **Free PMC article.**

Air Pollution and the Dynamic Association Between Depressive Symptoms and Memory in Oldest-Old Women.

Petkus AJ, Younan D, Wang X, Beavers DP, Espeland MA, Gatz M, Gruenewald TL, Kaufman JD, Chui HC, Manson JE, Resnick SM, Wellenius GA, Whitsel EA, Widaman K, Chen JC. *J Am Geriatr Soc.* 2020 Nov 17. doi: 10.1111/jgs.16889. Online ahead of print. PMID: 33205418

Association of quantitative CT lung density measurements and lung function decline in World Trade Center workers.

Liu X, Reeves AP, Antoniak K, San José Estépar R, Doucette JT, Jeon Y, Weber J, Xu D, Celedón JC, de la Hoz RE. *Clin Respir J.* 2020 Nov 26. doi: 10.1111/crj.13313. Online ahead of print. PMID: 33244876

Switching to Progressively Reduced Nicotine Content Cigarettes in Smokers with Low Socioeconomic Status: A Double-Blind Randomized Clinical Trial.

Krebs NM, Zhu J, Wasserman E, Kuprewicz R, Martinez DJ, Veldheer S, Livelsberger C, Modesto J, Reinhart L, Trushin N, Reilly SM, Liao J, Fazzi A, Bascom R, Richie JP, Foulds J, Horn K, Muscat JE. *Nicotine Tob Res.* 2020 Nov 29;ntaa247. doi: 10.1093/ntr/ntaa247. Online ahead of print. PMID: 33249498

Epilepsy surveillance in normocephalic children with and without prenatal Zika virus exposure.

Blackmon K, Waechter R, Landon B, Noël T, Macpherson C, Donald T, Cudjoe N, Evans R, Burgen KS, Jayatilake P, Oyegunle V, Pedraza O, Abdel Baki S, Thesen T, Dlugos D, Chari G, Patel AA, Grossi-Soyster EN, Krystosik AR, LaBeaud AD. *PLoS Negl Trop Dis.* 2020 Nov 30;14(11):e0008874. doi: 10.1371/journal.pntd.0008874. eCollection 2020 Nov. PMID: 33253174 **Free PMC article.**



Cardiopulmonary Impact of Particulate Air Pollution in High-Risk Populations: JACC State-of-the-Art Review. Newman JD, Bhatt DL, Rajagopalan S, Balme JR, Brauer M, Breysse PN, Brown AGM, Carnethon MR, Cascio WE, Collman GW, Fine LJ, Hansel NN, Hernandez A, Hochman JS, Jerrett M, Joubert BR, **Kaufman JD**, Malik AO, Mensah GA, Newby DE, Peel JL, Siegel J, Siscovick D, Thompson BL, Zhang J, Brook RD. *J Am Coll Cardiol.* 2020 Dec 15;76(24):2878-2894. doi: 10.1016/j.jacc.2020.10.020.PMID: 33303078 Review.

Pulmonary Hypertension and Cardiopulmonary Disease

Prevalence and risk factors of pulmonary hypertension among adult patients with HIV infection in Ethiopia. Huluka DK, Mekonnen D, Abebe S, Meshesha A, Mekonnen D, Deyessa N, Klinger JR, Ventetuolo CE, Schluger NW, **Sherman CB**, Amogne W. *Pulm Circ.* 2020 Nov 25;10(4):2045894020971518. doi: 10.1177/2045894020971518. eCollection 2020 Oct-Dec. PMID: 33282203 **Free PMC article.**

DNA methylation-based biomarkers of age acceleration and all-cause death, myocardial infarction, stroke, and cancer in two cohorts: The NAS, and KORA F4.

Wang C, Ni W, Yao Y, Just A, Heiss J, Wei Y, Gao X, Coull BA, Kosheleva A, Baccarelli AA, Peters A, **Schwartz JD**. *EBioMedicine.* 2020 Dec 3;63:103151. doi: 10.1016/j.ebiom.2020.103151. Online ahead of print. PMID: 33279859 **Free PMC article.**

EmPHasis-10 as a Measure of Health-Related Quality of Life in Pulmonary Arterial Hypertension: data from PHAR.

Borgese M, Badesch D, Bull T, Chakinala M, DeMarco T, Feldman J, **Ford HJ**, Grinnan D, Klinger JR, Bolivar L, Shlobin OA, Frantz RP, Sager JS, Mathai SC, Kawut S, Leary P, Gray MP, Popat RA, Zamanian RT; PHAR Study Group. *Eur Respir J.* 2020 Nov 26:2000414. doi: 10.1183/13993003.00414-2020. Online ahead of print. PMID: 33243844

Short-term differences in cardiac function following controlled exposure to cookstove air pollution: The subclinical tests on volunteers exposed to smoke (STOVES) study.

Cole-Hunter T, Dhingra R, Fedak KM, Good N, L'Orange C, Luckasen G, Mehaffy J, Walker E, Wilson A, **Balmes J**, Brook RD, Clark ML, Devlin RB, Volckens J, Peel JL. *Environ Int.* 2020 Nov 19;146:106254. doi: 10.1016/j.envint.2020.106254. Online ahead of print. PMID: 33221594 **Free article.**

Academic Medicine

Exiting Medicine Faculty Want the Organizational Culture and Climate to Change.

Sood A, Rishel Brakey H, Myers O, Greenberg N, Tigges B, Sigl D, Wilson B. *Chron Mentor Coach.* 2020 Dec;4(SI13):359-364. PMID: 33244484

Factors Related to Faculty Retention in a School of Medicine: A Time to Event Analysis.

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

Reliability of Peer Review of Abstracts Submitted to Academic Family Medicine Meetings.

Fenton JJ, **Tapp H**, Thakur NM, Pfeifle AL. *J Am Board Fam Med.* 2020 Nov-Dec;33(6):986-991. doi: 10.3122/jabfm.2020.06.200123. PMID: 33219077 **Free article.**

Critical Care



Development and Prospective Validation of a Deep Learning Algorithm for Predicting Need for Mechanical Ventilation.

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

Sleep

PAP Adherence and Nasal Resistance: A Randomized Control Trial of CPAP_{Flex} vs CPAP.

Sunderram J, Ayappa I, Lu SE, Wang H, Black K, Twumasi A, Sanders H, Harrison D, Udasin I, Chitkara N, **de la Hoz RE**, Carson JL, Rapoport DM. *Ann Am Thorac Soc*. 2020 Nov 17. doi: 10.1513/AnnalsATS.202009-1161OC. Online ahead of print. PMID: 33202147

Neonatal and Pediatric Disease

Respiratory health, children's lung function, and air quality in four Chinese cities: two snapshots in 1993-1996 and 2017-2018.

Zhang JJ, Kan H, **Kipen HM**. *J Thorac Dis*. 2020 Oct;12(10):6311-6314. doi: 10.21037/jtd-19-crh-aq-preface. PMID: 33209470 **Free PMC article**. No abstract available.

Climate Change, Public Health and Policy

Exposure assessment of emissions from mobile food carts on New York City streets.

Nahar K, Rahman MM, Raja A, **Thurston GD**, Gordon T. *Environ Pollut*. 2020 Dec;267:115435. doi: 10.1016/j.envpol.2020.115435. Epub 2020 Aug 18. PMID: 33254643

Strategies for Clinical Discussions About Climate Change.

Senay E, Sarfaty M, **Rice MB**. *Ann Intern Med*. 2020 Dec 15:M20-6443. doi: 10.7326/M20-6443. Online ahead of print. PMID: 33315471 **Free PMC article**.

Health Needs and Functional Disability Among Mail-Order Pharmacy Users in the US.

Gaffney AW, Woolhandler S, Himmelstein D. *JAMA Intern Med*. 2020 Dec 14:e207254. doi: 10.1001/jamainternmed.2020.7254. Online ahead of print. PMID: 33315047

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

Sub-ohm vaping increases the levels of carbonyls, is cytotoxic, and alters gene expression in human bronchial epithelial cells exposed at the air-liquid interface.

Noël A, Hossain E, Perveen Z, Zaman H, Penn AL. *Respir Res*. 2020 Nov 19;21(1):305. doi: 10.1186/s12931-020-01571-1. PMID: 33213456 **Free PMC article**.

Expression of endocannabinoid system components in human airway epithelial cells: impact of sex and chronic respiratory disease status.

Fantauzzi MF, Aguiar JA, Tremblay BJ, Mansfield MJ, Yanagihara T, Chandiramohan A, Revill S, Ryu MH, **Carlsten C**, Ask K, Stämpfli M, Doxey AC, Hirota JA. *ERJ Open Res*. 2020 Dec 14;6(4):00128-2020. doi: 10.1183/23120541.00128-2020. eCollection 2020 Oct. PMID: 33344628 **Free PMC article**.

Clinical, Bronchoscopic, and Imaging Findings of e-Cigarette, or Vaping, Product Use-Associated Lung Injury Among Patients Treated at an Academic Medical Center.



Aberegg SK, Cirulis MM, Maddock SD, Freeman A, Keenan LM, **Pirozzi CS**, Raman SM, Schroeder J, Mann H, Callahan SJ. *JAMA Netw Open*. 2020 Nov 2;3(11):e2019176. doi: 10.1001/jamanetworkopen.2020.19176.PMID: 33156346

Dual Substance Use of Electronic Cigarettes and Alcohol.

Wetzel TJ, **Wyatt TA**. *Front Physiol*. 2020 Nov 2;11:593803. doi: 10.3389/fphys.2020.593803. eCollection 2020.PMID: 33224040 **Free PMC article**. Review.

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

Jabba SV, Diaz AN, Erythropel HC, Zimmerman JB, **Jordt SE**. *Nicotine Tob Res*. 2020 Dec 15;22(Supplement_1):S25-S34. doi: 10.1093/ntr/ntaa185.PMID: 33320255

Smoking practices in relation to exhaled carbon monoxide in an occupational cohort.

Vinnikov D, Tulekov Z, Romanova Z, Krugovykh I, **Blanc PD**. *BMC Public Health*. 2020 Dec 9;20(1):1894. doi: 10.1186/s12889-020-09997-4.PMID: 33298031 **Free PMC article**.

Cancer

Tumor evolutionary trajectories during the acquisition of invasiveness in early stage lung adenocarcinoma.

Wang S, Du M, Zhang J, Xu W, Yuan Q, Li M, Wang J, Zhu H, Wang Y, Wang C, Gong Y, Wang X, Hu Z, **Christiani DC**, Xu L, Shen H, Yin R. *Nat Commun*. 2020 Nov 27;11(1):6083. doi: 10.1038/s41467-020-19855-x.PMID: 33247113 **Free PMC article**.

Effect of Deep Inspiration Breath Hold on Normal Tissue Sparing With Intensity Modulated Radiation Therapy Versus Proton Therapy for Mediastinal Lymphoma.

Moreno AC, Gunther JR, Milgrom S, Fuller CD, Williamson T, **Liu A**, Wu R, Zhu XR, Dabaja BS, Pinnix CC. *Adv Radiat Oncol*. 2020 Aug 25;5(6):1255-1266. doi: 10.1016/j.adro.2020.08.004. eCollection 2020 Nov-Dec.PMID: 33305086 **Free PMC article**.

Pilot Study of the Performance of 19-G Needle in Endobronchial Ultrasound-guided Transbronchial Aspiration for the Diagnosis and Testing of Molecular Markers in Lung Cancer.

Wahidi MM, Davidson K, Shofer S, Mahmood K, Cheng G, **Giovacchini C**, Jones C, Jug R, Pavlisko EN, Wang X, Gu L, Weimholt C, Zhou Z, Chen A. *J Bronchology Interv Pulmonol*. 2020 Dec 2; Publish Ahead of Print. doi: 10.1097/LBR.0000000000000736. Online ahead of print.PMID: 33273249

The oral microbiome and lung cancer risk.

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

Sarcoidosis and Interstitial Lung Disease

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

Assassi S, Li N, Volkmann ER, Mayes MD, Runger D, Ying J, Roth MD, Hinchcliff M, Khanna D, Frech T, Clements PJ, Furst DE, Goldin J, Bernstein EJ, Castellino FV, Domsic RT, Gordon JK, Hant FN, Shah AA, Shanmugam VK, Steen VD, Elashoff RM, **Tashkin DP**. *Arthritis Rheumatol*. 2020 Dec 21. doi: 10.1002/art.41627. Online ahead of print.PMID: 33350170



Cellular Mechanisms

The role of miR-21 in nickel nanoparticle-induced MMP-2 and MMP-9 production in mouse primary monocytes: In vitro and in vivo studies.

Mo Y, Zhang Y, Mo L, Wan R, Jiang M, **Zhang Q**. *Environ Pollut*. 2020 Dec;267:115597. doi: 10.1016/j.envpol.2020.115597. Epub 2020 Sep 4. PMID: 33254626

Secretory Cells Dominate Airway CFTR Expression and Function in Human Airway Superficial Epithelia.

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

Lrp1 Regulation of Pulmonary Function: Follow-up of Human GWAS in Mouse.

Nichols CE, House JS, Li H, Ward JM, Wyss A, Williams JG, Deterding LJ, Bradbury JA, Miller L, Zeldin DC, **London SJ**. *Am J Respir Cell Mol Biol*. 2020 Dec 8. doi: 10.1165/rcmb.2019-0444OC. Online ahead of print. PMID: 33290178

Direct Observations of Silver Nanowire-Induced Frustrated Phagocytosis among NR8383 Lung Alveolar Macrophages.

Ogorodnik E, Karsai A, Wang KH, Liu FT, Lo SH, **Pinkerton KE**, Gilbert B, Haudenschild DR, Liu GY. *J Phys Chem B*. 2020 Dec 11. doi: 10.1021/acs.jpcc.0c08132. Online ahead of print. PMID: 33306381

Cell Killing and Chromosome Aberrations by Ionizing Radiations: Brother, Can You Paradigm?

Bedford JS, **Brown JM**. *Int J Radiat Oncol Biol Phys*. 2021 Jan 1;109(1):73-75. doi: 10.1016/j.ijrobp.2020.08.041. PMID: 33308706 No abstract available.

DNA methylation and body mass index from birth to adolescence: meta-analyses of epigenome-wide association studies.

Vehmeijer FOL, Küpers LK, Sharp GC, Salas LA, Lent S, Jima DD, Tindula G, Reese S, Qi C, Gruziova O, Page C, Rezwan FI, Melton PE, Nohr E, Escaramís G, Rzehak P, Heiskala A, Gong T, Tuominen ST, Gao L, Ross JP, Starling AP, Holloway JW, Yousefi P, Aasvang GM, Beilin LJ, Bergström A, Binder E, Chatzi L, Corpeleijn E, Czamara D, Eskenazi B, Ewart S, Ferre N, Grote V, Gruszfeld D, Håberg SE, Hoyo C, Huen K, Karlsson R, Kull I, Langhendries JP, Lepeule J, Magnus MC, Maguire RL, Molloy PL, Monnereau C, Mori TA, Oken E, Räikkönen K, Rifas-Shiman S, Ruiz-Arenas C, Sebert S, Ulleamar V, Verduci E, Vonk JM, Xu CJ, Yang IV, Zhang H, Zhang W, Karmaus W, Dabelea D, Muhlhausler BS, Breton CV, Lahti J, Almqvist C, Jarvelin MR, Koletzko B, Vrijheid M, Sørensen TIA, Huang RC, Arshad SH, Nystad W, Melén E, Koppelman GH, **London SJ**, Holland N, Bustamante M, Murphy SK, Hivert MF, Baccarelli A, Relton CL, Snieder H, Jaddoe VWV, Felix JF. *Genome Med*. 2020 Nov 25;12(1):105. doi: 10.1186/s13073-020-00810-w. PMID: 33239103 **Free PMC article.**

Integrase-Defective Lentiviral Vectors for Delivery of Monoclonal Antibodies against Influenza.

Michellini Z, Minkoff JM, Yang J, Negri D, Cara A, Hanson BJ, **Salvatore M**. *Viruses*. 2020 Dec 17;12(12):E1460. doi: 10.3390/v12121460. PMID: 33348840 **Free article.**

Extrapulmonary Medicine



Health-Related Quality of Life in Patients With a Left Ventricular Assist Device (QOLVAD) Questionnaire: Initial Psychometrics of a New Instrument.

Sandau KE, Lee CS, Faulkner KM, Pozehl B, Eckman P, Garberich R, Weaver CE, Joseph SM, Hall S, **Carey SA**, Chaudhry SP, Schroeder SE, Hoffman RO 3rd, Feldman D, Birati EY, Soni M, Marble JF, Jurgens CY, Hoglund B, Cowger JA. *J Cardiovasc Nurs.* 2020 Dec 9. doi: 10.1097/JCN.0000000000000774. Online ahead of print. PMID: 33306621

Racial Disparities in Systemic Sclerosis: Short- and Long-Term Outcomes Among African American Participants of SLS I and II.

Volkman ER, Steen V, Li N, Roth MD, Clements PJ, Furst DE, Assassi S, Khanna D, Kim GJ, Goldin J, Elashoff RM, **Tashkin DP**. *ACR Open Rheumatol.* 2020 Dec 5. doi: 10.1002/acr2.11206. Online ahead of print. PMID: 33277978 **Free article.**

Biomarkers of inflammation and repair in kidney disease progression.

Puthumana J, Thiessen-Philbrook H, Xu L, Coca SG, Garg AX, Himmelfarb J, Bhatraju PK, Ikizler TA, Siew E, Ware LB, Liu KD, Go AS, **Kaufman JS**, Kimmel PL, Chinchilli VM, Cantley L, Parikh CR. *J Clin Invest.* 2020 Dec 8:139927. doi: 10.1172/JCI139927. Online ahead of print. PMID: 33290282 **Free article.**

Adiposity, metabolites, and colorectal cancer risk: Mendelian randomization study.

Bull CJ, Bell JA, Murphy N, Sanderson E, Davey Smith G, Timpson NJ, Banbury BL, Albanes D, Berndt SI, Bézieau S, Bishop DT, Brenner H, Buchanan DD, Burnett-Hartman A, Casey G, Castellví-Bel S, Chan AT, Chang-Claude J, Cross AJ, de la Chapelle A, Figueiredo JC, Gallinger SJ, Gapstur SM, Giles GG, Gruber SB, Gsur A, Hampe J, Hampel H, Harrison TA, Hoffmeister M, Hsu L, Huang WY, Huyghe JR, Jenkins MA, Joshi CE, Keku TO, Kühn T, Kweon SS, Le Marchand L, Li CI, **Li L**, Lindblom A, Martín V, May AM, Milne RL, Moreno V, Newcomb PA, Offit K, Ogino S, Phipps AI, Platz EA, Potter JD, Qu C, Quirós JR, Rennert G, Riboli E, Sakoda LC, Schafmayer C, Schoen RE, Slattery ML, Tangen CM, Tsilidis KK, Ulrich CM, van Duijnhoven FJB, van Guelpen B, Visvanathan K, Vodicka P, Vodickova L, Wang H, White E, Wolk A, Woods MO, Wu AH, Campbell PT, Zheng W, Peters U, Vincent EE, Gunter MJ. *BMC Med.* 2020 Dec 17;18(1):396. doi: 10.1186/s12916-020-01855-9. PMID: 33327948 **Free PMC article.**

The MUC5B-associated variant, rs35705950, resides within an enhancer subject to lineage- and disease-dependent epigenetic remodeling.

Gally F, Sasse SK, Kurche J, Gruca MA, Cardwell JH, Okamoto T, Chu HW, Hou X, Poirion O, Buchanan J, Preissl S, Ren B, Colgan SP, Dowell RD, Yang IV, **Schwartz DA**, Gerber AN. *JCI Insight.* 2020 Dec 15:144294. doi: 10.1172/jci.insight.144294. Online ahead of print. PMID: 33320836 **Free article.**

An association of Myelin Oligodendrocyte Glycoprotein (MOG) gene variants with white matter volume in pediatric obsessive-compulsive disorder.

Zai G, Arnold PD, Richter MA, Hanna GL, **Rosenberg D**, Kennedy JL. *Psychiatry Res Neuroimaging.* 2020 Nov 21;307:111231. doi: 10.1016/j.psychresns.2020.111231. Online ahead of print. PMID: 33302097

Reduced Mitochondrial Apoptotic Priming Drives Resistance to BH3 Mimetics in Acute Myeloid Leukemia.

Bhatt S, Pioso MS, Olesinski EA, Yilma B, Ryan JA, Mashaka T, Leutz B, Adamia S, Zhu H, Kuang Y, Mogili A, Louissaint AJ, Bohl SR, Kim AS, **Mehta AK**, Sanghavi S, Wang Y, Morris E, Halilovic E, Paweletz CP, Weinstock DM, Garcia JS, Letai A. *Cancer Cell.* 2020 Dec 14;38(6):872-890.e6. doi: 10.1016/j.ccell.2020.10.010. Epub 2020 Nov 19. PMID: 33217342



Explaining the Genetic Causality for Complex Phenotype via Deep Association Kernel Learning.

Bao F, Deng Y, Du M, Ren Z, Wan S, Liang KY, Liu S, Wang B, Xin J, Chen F, **Christiani DC**, Wang M, Dai Q. *Patterns* (N Y). 2020 Jul 1;1(6):100057. doi: 10.1016/j.patter.2020.100057. eCollection 2020 Sep 11. PMID: 33205126 **Free PMC article.**

Iron and zinc homeostases in female rats with physically active and sedentary lifestyles.

Ghio AJ, Soukup JM, Ghio C, Gordon CJ, Richards JE, Schladweiler MC, Snow SJ, Kodavanti UP. *Biometals*. 2020 Nov 25. doi: 10.1007/s10534-020-00266-w. Online ahead of print. PMID: 33237470

Association Between Depressive Symptoms and Incident Cardiovascular Diseases.

Harshfield EL, Pennells L, **Schwartz JE**, Willeit P, Kaptoge S, Bell S, Shaffer JA, Bolton T, Spackman S, Wassertheil-Smoller S, Kee F, Amouyel P, Shea SJ, Kuller LH, Kauhanen J, van Zutphen EM, Blazer DG, Krumholz H, Nietert PJ, Kromhout D, Laughlin G, Berkman L, Wallace RB, Simons LA, Dennison EM, Barr ELM, Meyer HE, Wood AM, Danesh J, Di Angelantonio E, Davidson KW; Emerging Risk Factors Collaboration. *JAMA*. 2020 Dec 15;324(23):2396-2405. doi: 10.1001/jama.2020.23068. PMID: 33320224

The present and future of systemic and microenvironment-targeted therapy for pancreatic adenocarcinoma.

Mehta A, Hwang WL, Weekes C. *Ann Pancreat Cancer*. 2020 May;3:3. doi: 10.21037/apc-2020-pda-05. Epub 2020 May 20. PMID: 33294843 **Free PMC article.**

Epidemiology of bone metastases.

Ryan C, Stoltzfus KC, Horn S, Chen H, Louie AV, Lehrer EJ, Trifiletti DM, Fox EJ, **Abraham JA**, Zaorsky NG. *Bone*. 2020 Dec 1:115783. doi: 10.1016/j.bone.2020.115783. Online ahead of print. PMID: 33276151

Association of intimate partner violence during pregnancy and birth weight among term births: a cross-sectional study in Kaduna, Northwestern Nigeria.

Kana MA, Safiyan H, Yusuf HE, Musa ASM, Richards-Barber M, Harmon QE, **London SJ**. *BMJ Open*. 2020 Dec 2;10(12):e036320. doi: 10.1136/bmjopen-2019-036320. PMID: 33268398 **Free PMC article.**

Effects of the Soluble Guanylate Cyclase Stimulator Praliciguat in Diabetic Kidney Disease: A Randomized Placebo-Controlled Clinical Trial.

Hanrahan JP, de Boer IH, Bakris GL, Wilson PJ, Wakefield JD, Seferovic JP, Chickering JG, Chien YT, Carlson K, Cressman MD, Currie MG, Milne GT, Profy AT. *Clin J Am Soc Nephrol*. 2020 Dec 16:CJN.08410520. doi: 10.2215/CJN.08410520. Online ahead of print. PMID: 33328269

Haloferax volcanii Immersed Liquid Biofilms Develop Independently of Known Biofilm Machineries and Exhibit Rapid Honeycomb Pattern Formation.

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

Efficacy of Tafamidis in Patients With Hereditary and Wild-Type Transthyretin Amyloid Cardiomyopathy: Further Analyses From ATTR-ACT.

Rapezzi C, Elliott P, Damy T, Nativi-Nicolau J, Berk JL, Velazquez EJ, Boman K, Gundapaneni B, Patterson TA, **Schwartz JH**, Sultan MB, Maurer MS. *JACC Heart Fail*. 2020 Dec 2:S2213-1779(20)30575-8. doi: 10.1016/j.jchf.2020.09.011. Online ahead of print. PMID: 33309574 **Free article.**



Outcomes and Tolerability of Definitive and Preoperative Chemoradiation in Elderly Patients With Esophageal Cancer: A Retrospective Institutional Review.

Rahimy E, Koong A, Toesca D, **White MN**, Panjwani N, Fisher G, Chang D, Pollom E. *Adv Radiat Oncol*. 2020 May 21;5(6):1188-1196. doi: 10.1016/j.adro.2020.05.001. eCollection 2020 Nov-Dec. PMID: 33305080 **Free PMC article**.

Physicochemical characterization and genotoxicity of the broad class of carbon nanotubes and nanofibers used or produced in U.S. facilities.

Fraser K, Kodali V, Yanamala N, Birch ME, Cena L, Casuccio G, Bunker K, Lersch TL, Evans DE, Stefaniak A, Hammer MA, Kashon ML, Boots T, Eye T, Hubczak J, Friend SA, Dahm M, Schubauer-Berigan MK, Siegrist K, Lowry D, **Bauer AK**, Sargent LM, Erdely A. *Part Fibre Toxicol*. 2020 Dec 7;17(1):62. doi: 10.1186/s12989-020-00392-w. PMID: 33287860 **Free PMC article**.

Enhanced weight and fat loss from long-term intermittent fasting in obesity-prone, low-fitness rats.

Smyers ME, Koch LG, Britton SL, **Wagner JG**, Novak CM. *Physiol Behav*. 2020 Dec 5;230:113280. doi: 10.1016/j.physbeh.2020.113280. Online ahead of print. PMID: 33285179

Impact of ultrasound guided training in the diagnosis of the fetal head position during labor: A prospective observational study.

Zegarra RR, di Pasquo E, Dall'Asta A, Minopoli M, Armano G, Fieni S, Frusca T, Ghi T. *Eur J Obstet Gynecol Reprod Biol*. 2020 Nov 20;256:308-313. doi: 10.1016/j.ejogrb.2020.11.053. Online ahead of print. PMID: 33260000

Evaluation of cardioprotective effects of carvedilol in dogs receiving doxorubicin chemotherapy: A prospective, randomized, double-blind, placebo controlled pilot study.

Pino EHM, Weber MN, de Oliveira LO, Vieira LC, Dos Santos KHS, Liu IP, Gomes HM, Trindade-Gerardi AB, Moreira JCF, **Gerardi DG**. *Res Vet Sci*. 2020 Nov 13:S0034-5288(20)31074-2. doi: 10.1016/j.rvsc.2020.11.007. Online ahead of print. PMID: 33221037

Website Survey Method for Assessing Higher Education Employee Health and Safety Programs.

Malomet MS, **Harber P.J** *Occup Environ Med*. 2020 Nov 20. doi: 10.1097/JOM.0000000000002091. Online ahead of print. PMID: 33229907

Relationship Between Clinicopathological Features and Prognosis in Appendicular Osteosarcoma in Dogs.

Guim TN, Bianchi MV, De Lorenzo C, Gouvêa AS, **Gerardi DG**, Driemeier D, Pavarini SP, Sonne L. *J Comp Pathol*. 2020 Oct;180:91-99. doi: 10.1016/j.jcpa.2020.09.003. Epub 2020 Oct 6. PMID: 33222881

Enteroendocrine cells sense bacterial tryptophan catabolites to activate enteric and vagal neuronal pathways.

Ye L, Bae M, Cassilly CD, Jabba SV, Thorpe DW, Martin AM, Lu HY, Wang J, Thompson JD, Lickwar CR, Poss KD, Keating DJ, **Jordt SE**, Clardy J, Liddle RA, Rawls JF. *Cell Host Microbe*. 2020 Dec 16:S1931-3128(20)30633-8. doi: 10.1016/j.chom.2020.11.011. Online ahead of print. PMID: 33352109

Updates from Terrorism and Inhalation Disasters (TID) Section

The leadership of TID Section wishes you all a happy, healthy, and prosperous new year!



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

Featured publication of the month

Smith LC, Venosa A, Gow AJ, Laskin JD, Laskin DL. Transcriptional profiling of lung macrophages during pulmonary injury induced by nitrogen mustard. *Ann N Y Acad Sci.* 2020 Nov;1480(1):146-154. doi: 10.1111/nyas.14444. Epub 2020 Aug 6. PMID: 32767459.
<https://nyaspubs.onlinelibrary.wiley.com/doi/10.1111/nyas.14444>

Abstract: Nitrogen mustard (NM) and sulfur mustard are cytotoxic alkylating agents that cause severe and progressive damage to the respiratory tract. Evidence indicates that macrophages play a key role in the acute inflammatory phase and the later resolution/profibrotic phase of the pathogenic response. These diverse roles are mediated by inflammatory macrophages broadly classified as M1 proinflammatory and M2 anti-inflammatory that sequentially accumulate in the lung in response to injury. The goal of the present study was to identify signaling mechanisms contributing to macrophage activation in response to mustards. To accomplish this, we used RNA sequencing to analyze the gene expression profiles of lung macrophages isolated 1 and 28 days after intratracheal exposure of rats to NM (0.125 mg/kg) or phosphate-buffered saline control. We identified 641 and 792 differentially expressed genes 1 and 28 days post-NM exposure, respectively. These genes are primarily involved in processes related to cell movement and are regulated by cytokines, including tumor necrosis factor- α , interferon- γ , and interleukin-1 β . Some of the most significantly enriched canonical pathways included STAT3 and NF- κ B signaling. These cytokines and pathways may represent potential targets for therapeutic intervention to mitigate mustard-induced lung toxicity.

Congratulations to the authors of this publication!!!

Funding opportunities

**NIH Countermeasures Against Chemical Threats (CounterACT)
Research Centers of Excellence (U54 - Clinical Trial Optional)**

<https://grants.nih.gov/grants/guide/pa-files/PAR-20-316.html>

Funding Opportunity Purpose

This Funding Opportunity Announcement (FOA) encourages applications for Countermeasures Against Chemical Threats ([CounterACT](#)) Research Centers of Excellence (U54s). The mission of the NIH CounterACT program is to foster and support research and development of new and improved



therapeutics for chemical threats. Chemical threats are toxic chemicals that could be used in a terrorist attack or accidentally released from industrial production, storage or shipping. They include traditional chemical warfare agents, toxic industrial chemicals, pharmaceutical-based agents, and pesticides. The scope of the research includes target and lead candidate identification and characterization, through lead candidate optimization and demonstration of in vivo efficacy consistent with the product's intended use in humans as a medical countermeasure. For applicants submitting U54 renewal applications, research under this FOA should culminate in an optimized lead compound ready for advanced development. The Centers will contain at least three research projects supported by an administrative core, up to three optional scientific cores, a research education core, and a pilot project program to support short-term innovative research and recruitment of new investigators into the field of medical countermeasures research. Each research project must include milestones that create discrete go or no-go decision points in a progressive translational study plan.

Key Dates

Posted Date

December 21, 2020

Open Date (Earliest Submission Date)

August 14, 2021

Letter of Intent Due Date(s)

30 days prior to the application due date

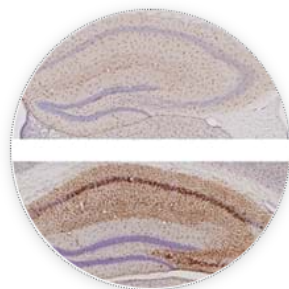
Application Due Date(s)

September 14, 2021, September 13, 2022, September 12, 2023.

All applications are due by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on the listed date(s).

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Relevant publications for TID Section



Annals of the New York Academy of Sciences

Special Issue: Countermeasures Against Chemical Threats (vol 1480)

Edited By:

Jeffrey D. Laskin (Rutgers University)

Publication Date:

November 30, 2020

Volume:

1480

This is the second of two *Annals* issues describing the latest research into countermeasures against various chemical threats, both accidental and deliberate. It presents 1 Concise Review, 5 Reviews, and 11 Original Articles.

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CONCISE REVIEW

Nutraceuticals as potential therapeutics for vesicant-induced pulmonary fibrosis

Rita Businaro, Elisa Maggi, Federica Armeli, Alexa Murray, Debra L. Laskin

REVIEWS

Disease-modifying treatment of chemical threat agent-induced acute lung injury

Jared Radbel, Debra L. Laskin, Jeffrey D. Laskin, Howard M. Kipen

Halogen exposure injury in the developing lung

Dylan R. Addis, Adam Molyvdas, Namasivayam Ambalavanan, Sadis Matalon, Tamas Jilling

Chemical warfare agent research in precision-cut tissue slices—a useful alternative approach

Julia Herbert, Debra L. Laskin, Andrew J. Gow, Jeffrey D. Laskin

[Enhancing organophosphate hydrolase efficacy via protein engineering and immobilization strategies](#)

Priya Katyal, Stanley Chu, Jin Kim Montclare

[Transient receptor potential channels in pulmonary chemical injuries and as countermeasure targets](#)

Satyanarayana Achanta, Sven-Eric Jordt

ORIGINAL ARTICLES

[Circulating and tissue biomarkers as predictors of bromine gas inhalation](#)

Juan Xavier Masjoan Juncos, Shazia Shakil, Aamir Ahmad, Duha Aishah, Charity J. Morgan, Louis J. Dell'Italia, David A. Ford, Aftab Ahmad, Shama Ahmad

[Magnetic resonance imaging analysis of long-term neuropathology after exposure to the nerve agent soman: correlation with histopathology and neurological dysfunction](#)

Sandesh D. Reddy, Xin Wu, Ramkumar Kuruba, Vidya Sridhar, Doodipala Samba Reddy

[Organoleptic assessment and median lethal dose determination of oral aldicarb in rats](#)

Nathaniel C. Rice, Noah A. Rauscher, Mark C. Moffett, Todd M. Myers

[Transcriptional profiling of lung macrophages during pulmonary injury induced by nitrogen mustard](#)

L. Cody Smith, Alessandro Venosa, Andrew J. Gow, Jeffrey D. Laskin, Debra L. Laskin

[Protective role of HO-1 against acute kidney injury caused by cutaneous exposure to arsenicals](#)

Ritesh K. Srivastava, Suhail Muzaffar, Jasim Khan, Amie M. Traylor, Jaroslaw W. Zmijewski, Lisa M. Curtis, James F. George, Aftab Ahmad, Veena B. Antony, Anupam Agarwal, Mohammad Athar

[A novel treatment for skin repair using a combination of spironolactone and vitamin D3](#)

Dauren Biyashev, Ummye V. Onay, Prarthana Dalal, Michael Demczuk, Spencer Evans, José-Marc Techner, Kurt Q. Lu

[Allopregnanone and perampanel as adjuncts to midazolam for treating diisopropylfluorophosphate-induced status epilepticus in rats](#)

Ashish Dhir, Donald A. Bruun, Michelle Guignet, Yi-Hua Tsai, Eduardo González, Jonas Calsbeek, Joan Vu, Naomi Saito, Daniel J. Tancredi, Danielle J. Harvey, Pamela J. Lein, Michael A. Rogawski

[Characterization of hydrogen sulfide toxicity to human corneal stromal fibroblasts](#)

Praveen K. Balne, Nishant R. Sinha, Alexandria C. Hofmann, Lynn M. Martin, Rajiv R. Mohan

[Intramuscular atenolol and levetiracetam reduce mortality in a rat model of paraoxon-induced status epilepticus](#)

Laxmikant S. Deshpande, Robert E. Blair, Matthew Halquist, Leon Kosmider, Robert J. DeLorenzo

[A rabbit model for evaluating ocular damage from acrolein toxicity *in vivo*](#)

Suneel Gupta, Michael K. Fink, Lynn M. Martin, Prashant R. Sinha, Jason T. Rodier, Nishant R. Sinha, Nathan P. Hesemann, Shyam S. Chaurasia, Rajiv R. Mohan

[Assessment of mustard vesicant lung injury and anti-TNF- \$\alpha\$ efficacy in rodents using live-animal imaging](#)

Alexa Murray, Andrew J. Gow, Alessandro Venosa, Jaclynn Andres, Rama Malaviya, Derek Adler, Edward Yurkow, Jeffrey D. Laskin, Debra L. Laskin

2020 Papers of the Year

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From the nearly 3,500 publications by NIEHS researchers and grantees in 2020, the institute's leaders selected 27 for special recognition as Papers of the Year.

https://factor.niehs.nih.gov/2021/1/feature/3-feature-papers-of-the-year/index.htm?utm_source=efactor-newsletter&utm_medium=email&utm_campaign=efactor-newsletter-2021-January

Jabba SV, Diaz AN, Erythropel HC, Zimmerman JB, Jordt SE. Chemical Adducts of Reactive Flavor Aldehydes Formed in E-Cigarette Liquids Are Cytotoxic and Inhibit Mitochondrial Function in Respiratory Epithelial Cells. *Nicotine Tob Res.* 2020 Dec 15;22(Supplement_1):S25-S34. doi: 10.1093/ntr/ntaa185. PMID: 33320255.

Tidwell RD, Wills BK. Tear Gas and Pepper Spray Toxicity. 2020 Nov 4. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. PMID: 31334983.



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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.



Potential Faculty Positions

Please email us with any additional positions you would like included

COVID-19 RESOURCES

ATS Resources

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

Other Resources

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

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

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

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

Which can be accessed [HERE](#)

Advice for Pulmonary Function Testing

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

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

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



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

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

Volunteer using this link:

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

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