

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 navigate and respond to the COVID-19 pandemic. ATS has rescheduled portions of the 2020 international conference that will be held virtually. We have also included some resources to help everyone stay informed as to the current status of the pandemic.

Also included in this May 2020 newsletter are some of our members' recent and "epub ahead of print" articles from the month of April 2020 to May 2020.

If you have a recent publication 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 publications 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.

Air Pollution and Environmental Exposures

Outdoor Air Pollution and New-Onset Airway Disease. An Official American Thoracic Society Workshop Report.

Thurston GD, Balmes JR, Garcia E, Gilliland FD, Rice MB, Schikowski T, Van Winkle LS, Annesi-Maesano I, Burchard EG, Carlsten C, Harkema JR, Khreis H, Kleeberger SR, Kodavanti UP, London SJ, McConnell R, Peden DB, Pinkerton KE, Reibman J, White CW. *Ann Am Thorac Soc*. 2020 Apr;17(4):387-398. doi: 10.1513/AnnalsATS.202001-046ST. PMID:32233861

A neuroglobin-based high-affinity ligand trap reverses carbon monoxide-induced mitochondrial poisoning.

Rose JJ, Bocian KA, Xu Q, Wang L, DeMartino AW, Chen X, Corey CG, Guimarães DA, Azarov I, Huang XN, Tong Q, Guo L, Nouraie M, McTiernan CF, O'Donnell CP, Tejero J, Shiva S, Gladwin M. *J Biol Chem*. 2020 Mar 23;jbc.RA119.010593. doi: 10.1074/jbc.RA119.010593. [Epub ahead of print.] PMID: 32205448.

MultiOMICs of WTC-Particulate Induced Persistent Airway Hyperreactivity: Role of Receptor for Advanced Glycation End Products

Haider SH, Veerappan A, Crowley G, Ostrofsky D, Mikhail M, Lam R, Wang Y, Sunseri M, Kwon S, Prezant DJ, Liu M, Schmidt AM, Nolan A. *Am J Respir Cell Mol Biol*. 2020 Apr 21.doi: 10.1165/rcmb.2019-0064OC. [Epub ahead of print] PMID: 32315541

Organized lymphatic tissue (BALT) in lungs of rhesus monkeys after air pollutant exposure.

Pabst R, Miller LA, Schelegle E, Hyde DM. *Anat Rec (Hoboken)*. 2020 May 23. doi: 10.1002/ar.24456. [Epub ahead of print] Review. PMID: 32445535

Long-term ozone exposure is positively associated with telomere length in critically ill patients.

Wang C, Wolters PJ, Calfee CS, Liu S, Balmes JR, Zhao Z, Koyama T, Ware LB. *Environ Int*. 2020 May 8;141:105780. doi: 10.1016/j.envint.2020.105780. [Epub ahead of print] PMID: 32417614

Supplementation with omega-3 fatty acids potentiates oxidative stress in human airway epithelial cells exposed to ozone.

Corteselli EM, Gold A, Surratt J, Cui T, Bromberg P, Dailey L, Samet JM. *Environ Res*. 2020 May 11;187:109627. doi: 10.1016/j.envres.2020.109627. [Epub ahead of print] PMID: 32417507

Influence of total western diet on docosahexaenoic acid suppression of silica-triggered lupus flaring in NZBWF1 mice.



Gilley KN, Wierenga KA, Chauhan PS, Wagner JG, Lewandowski RP, Ross EA, Lock AL, Harkema JR, Benninghoff AD, Pestka JJ.

PLoS One. 2020 May 15;15(5):e0233183. doi: 10.1371/journal.pone.0233183. eCollection 2020.

PMID: 32413078

Prospective cohort study of respiratory effects at ages 14 to 26 following early life exposure to arsenic in drinking water.

Khan MA, Hira-Smith M, Ahmed SI, Yunus M, Hasan SMT, Liaw J, Balmes J, Raqib R, Yuan Y, Kalman D, Roh T, Steinmaus C, Smith AH.

Environ Epidemiol. 2020 Apr 9;4(2):e089. doi: 10.1097/EE9.0000000000000089. eCollection 2020 Apr.

PMID: 32337474

MyD88 regulates a prolonged adaptation response to environmental dust exposure-induced lung disease.

Johnson AN, Harkema JR, Nelson AJ, Dickinson JD, Kalil J, Duryee MJ, Thiele GM, Kumar B, Singh AB, Gaurav R, Glover SC, Tang Y, Romberger DJ, Kielian T, Poole JA.

Respir Res. 2020 Apr 22;21(1):97. doi: 10.1186/s12931-020-01362-8.

PMID:32321514

In vivo and in vitro inflammatory responses to fine particulate matter (PM_{2.5}) from China and California

Yuan W, Fulgar CC, Sun X, Vogel CFA, Wu CW, Zhang Q, Bein KJ, Young DE, Li W, Wei H, Pinkerton KE.

Toxicol Lett. 2020 Aug 1;328:52-60. doi: 10.1016/j.toxlet.2020.04.010. Epub 2020 Apr 19.

PMID:32320776

Pneumonia and Exposure to Household Air Pollution in Children Under the Age of 5 Years in Rural Malawi: Findings From the Cooking and Pneumonia Study.

Mortimer K, Lesosky M, Semple S, Malava J, Katundu C, Crampin A, Wang D, Weston W, Pope D, Havens D, Gordon SB, Balmes J.

Chest. 2020 Apr 18. pii: S0012-3692(20)30692-9. doi: 10.1016/j.chest.2020.03.064. [Epub ahead of print]

PMID:32311349

Prenatal phthalate, paraben, and phenol exposure and childhood allergic and respiratory outcomes: Evaluating exposure to chemical mixtures.

Berger K, Coker E, Rauch S, Eskenazi B, Balmes J, Kogut K, Holland N, Calafat AM, Harley K.

Sci Total Environ. 2020 Apr 3;725:138418. doi: 10.1016/j.scitotenv.2020.138418. [Epub ahead of print]

PMID:32302842

Acute changes in lung function following controlled exposure to cookstove air pollution in the subclinical tests of volunteers exposed to smoke (STOVES) study.

Fedak KM, Good N, Walker ES, Balmes J, Brook RD, Clark ML, Cole-Hunter T, Devlin R, L'Orange C, Luckasen G, Mehaffy J, Shelton R, Wilson A, Volckens J, Peel JL.

Inhal Toxicol. 2020 Feb;32(3):115-123. doi: 10.1080/08958378.2020.1751750. Epub 2020 Apr 16.

PMID:32297528

Association between ambient beta particle radioactivity and lower hemoglobin concentrations in a cohort of elderly men.

Vieira CLZ, Garshick E, Alvares D, Schwartz J, Huang S, Vokonas P, Gold DR, Koutrakis P.

Environ Int. 2020 Apr 15;139:105735. doi: 10.1016/j.envint.2020.105735. [Epub ahead of print]



PMID:32304940

The role of ambient particle radioactivity in inflammation and endothelial function in an elderly cohort.

Blomberg AJ, Nyhan MM, Bind MA, Vokonas P, Coull BA, Schwartz J, Koutrakis P.

Epidemiology. 2020 Mar 31. doi: 10.1097/EDE.0000000000001197. [Epub ahead of print]

PMID:32282436

Letter to Editor regarding Franzblau et al. 2020: Asbestos-containing materials in abandoned residential dwellings in Detroit, Science of Total Environment, v714,1-8.

Frank AL.

Sci Total Environ. 2020 May 1:139129. doi: 10.1016/j.scitotenv.2020.139129. [Epub ahead of print] No abstract available.

PMID:32404238

Long-term exposure to air pollution and trajectories of cognitive decline among older adults.

Kulick ER, Wellenius GA, Boehme AK, Joyce NR, Schupf N, Kaufman JD, Mayeux R, Sacco RL, Manly JJ, Elkind MSV.

Neurology. 2020 Apr 28;94(17):e1782-e1792. doi: 10.1212/WNL.0000000000009314. Epub 2020 Apr 8.

PMID: 32269113

Exposure to Particle Beta Radiation in Greater Massachusetts and Factors Influencing Its Spatial and Temporal Variability.

Blomberg AJ, Li L, Schwartz JD, Coull BA, Koutrakis P.

Environ Sci Technol. 2020 May 12. doi: 10.1021/acs.est.0c00454. [Epub ahead of print]

PMID:32363859

Transplant Medicine

Prevalence and impact of restrictive lung disease in liver transplant candidates.

DuBrock HM, Krowka MJ, Krok K, Forde K, Mottram C, Scanlon P, Al-Naamani N, Patel M, McCormick A, Fallon MB, Kawut SM.

Liver Transpl. 2020 May 11. doi: 10.1002/lt.25794. [Epub ahead of print]

PMID:32394590

Frailty after lung transplantation is associated with impaired health-related quality of life and mortality.

Venado A, Kolaitis NA, Huang CY, Gao Y, Glidden DV, Soong A, Sutter N, Katz PP, Greenland JR, Calabrese DR, Hays SR, Golden JA, Shah RJ, Leard LE, Kukreja J, Deuse T, Wolters PJ, Covinsky K, Blanc PD, Singer JP.

Thorax. 2020 May 6. pii: thoraxjnl-2019-213988. doi: 10.1136/thoraxjnl-2019-213988. [Epub ahead of print]

PMID:32376733

Impact of autologous blood transfusion after bone marrow harvest on unrelated donor's health and outcome: a CIBMTR analysis.

Farhadfar N, Murthy HS, Logan BR, Sees JA, Mouhab A, Battiwalla M, Beitinjane AM, Chhabra S, Diaz MA, Engles K, Frangoul H, Ganguly S, Gergis U, Kamani NR, Kamble RT, Kasow KA, Lazarus HM, Liesveld JL, Norkin M, O'Donnell PV, Olsson RF, Rossman SN, Savani BN, Scheers R, Seo S, Solh MM, Spitzer T, Sugrue M, Yared JA, Linenberger M, Schwartz J, Pulsipher MA, Shah NN, Switzer GE, Confer DL, Shaw BE, Wingard JR.

Bone Marrow Transplant. 2020 Apr 30. doi: 10.1038/s41409-020-0911-8. [Epub ahead of print]

PMID:32355289



Influenza

Spatial and temporal clustering of patients hospitalized with laboratory-confirmed influenza in the United States.

Sloan C, Chandrasekhar R, Mitchel E, Ndi D, Miller L, Thomas A, Bennett NM, Chai S, Spencer M, Eckel S, Spina N, Monroe M, Anderson EJ, Lynfield R, Yousey-Hindes K, Bargsten M, Zansky S, Lung K, Schroeder M, N Cummings C, Garg S, Schaffner W, Lindegren ML.

Epidemics. 2020 Feb 10;31:100387. doi: 10.1016/j.epidem.2020.100387. [Epub ahead of print]

PMID:32371346

Documentation of acute change in mental status in nursing homes highlights opportunity to augment infection surveillance criteria.

Penna AR, Sancken CL, Stone ND, Eure TR, Bamberg W, Barney G, Barter D, Carswell S, Clogher P, Dumyati G, Felsen CB, Frank L, Godine D, Johnston H, Kainer MA, Li L, Lynfield R, Mahoehey JP, Nadle J, Pierce R, Ray SM, Davis SS, Sievers M, Wilson LE, Zhang AY, Magill SS, Thompson ND.

Infect Control Hosp Epidemiol. 2020 Apr 28:1-3. doi: 10.1017/ice.2020.77. [Epub ahead of print]

PMID:32340639

Neonatal and Pediatric Disease

Vascular endothelial growth factor levels and bronchopulmonary dysplasia in preterm infants.

Mariduena J, Ramagopal M, Hiatt M, Chandra S, Laumbach R, Hegyi T.

J Matern Fetal Neonatal Med. 2020 May 4:1-6. doi: 10.1080/14767058.2020.1760826. [Epub ahead of print]

PMID: 32366142

Associations of alpha and gamma-tocopherol during early life with lung function in childhood.

Kumar R, Ferrie R, Balmert L, Kienzl M, Rifas-Shiman SL, Gold DR, Sordillo JE, Kleinman K, Camargo CA Jr, Litonjua AA, Oken E, Cook-Mills J.

J Allergy Clin Immunol. 2020 Apr 25. pii: S0091-6749(20)30567-4. doi: 10.1016/j.jaci.2020.04.019. [Epub ahead of print]

PMID:32344059

Research Methods, Training, and Clinical Care

Species-level evaluation of the human respiratory microbiome.

Ibironke O, McGuinness LR, Lu SE, Wang Y, Hussain S, Weisel CP, Kerkhof LJ.

Gigascience. 2020 Apr 1;9(4). pii: giaa038. doi: 10.1093/gigascience/giaa038.

PMID:32298431

Temporary Transvenous Diaphragmatic Neurostimulation in Prolonged Mechanically Ventilated Patients: A Feasibility Trial (RESCUE 1).

Ataya A, Silverman EP, Bagchi A, Sarwal A, Criner GJ, McDonagh DL.

Crit Care Explor. 2020 Apr 29;2(4):e0106. doi: 10.1097/CCE.0000000000000106. eCollection 2020 Apr.

PMID: 32426748

Viral contamination in biologic manufacture and implications for emerging therapies.

Barone PW, Wiebe ME, Leung JC, Hussein ITM, Keumurian FJ, Bouressa J, Brussel A, Chen D, Chong M, Dehghani H, Gerentes L, Gilbert J, Gold D, Kiss R, Kreil TR, Labatut R, Li Y, Müllberg J, Mallet L, Menzel C, Moody M,



Monpoeho S, Murphy M, Plavsic M, Roth NJ, Roush D, Ruffing M, Schicho R, Snyder R, Stark D, Zhang C, Wolfrum J, Sinskey AJ, Springs SL.

Nat Biotechnol. 2020 May;38(5):563-572. doi: 10.1038/s41587-020-0507-2. Epub 2020 Apr 27. Review. PMID:32341561

[Preserving Airway Smooth Muscle Contraction in Precision-Cut Lung Slices.](#)

Li G, Cohen JA, Martines C, Ram-Mohan S, Brain JD, Krishnan R, Ai X, Bai Y.

Sci Rep. 2020 Apr 15;10(1):6480. doi: 10.1038/s41598-020-63225-y.

PMID:32296115

[Recommended Reading from the Duke University Pulmonary and Critical Care Medicine Fellows.](#)

Mosher CL, Smith JB, McManigle WC, Giovacchini CX, Shofer SL.

Am J Respir Crit Care Med. 2020 May 21. doi: 10.1164/rccm.201908-1584RR. [Epub ahead of print] No abstract available.

PMID:32437241

[The Network Medicine Imperative and the Need for an International Network Medicine Consortium.](#)

Parini P, Altucci L, Balligand JL, Baumbach PDJ, Ferdinandy P, Filetti S, Maron BM, Petrillo E, Silverman EK, Barabasi AL, Loscalzo J; International Network Medicine Consortium**.

Am J Med. 2020 Apr 19. pii: S0002-9343(20)30340-5. doi: 10.1016/j.amjmed.2020.03.034. [Epub ahead of print] No abstract available.

PMID:32320696

[Molecular networks in Network Medicine: Development and applications.](#)

Silverman EK, Schmidt HHHW, Anastasiadou E, Altucci L, Angelini M, Badimon L, Balligand JL, Benincasa G, Capasso G, Conte F, Di Costanzo A, Farina L, Fiscon G, Gatto L, Gentili M, Loscalzo J, Marchese C, Napoli C, Paci P, Petti M, Quackenbush J, Tieri P, Viggiano D, Vilahur G, Glass K, Baumbach J.

Wiley Interdiscip Rev Syst Biol Med. 2020 Apr 19:e1489. doi: 10.1002/wsbm.1489. [Epub ahead of print] Review.

PMID:32307915

[Cardiovascular Disease](#)

[Subclinical Systolic and Diastolic Dysfunction Is Evident in Youth With Elevated Blood Pressure.](#)

Tran AH, Flynn JT, Becker RC, Daniels SR, Falkner BE, Ferguson M, Hanevold CD, Hooper SR, Ingelfinger JR, Lande MB, Martin LJ, Meyers K, Mitsnefes M, Rosner B, Samuels JA, Urbina EM.

Hypertension. 2020 Jun;75(6):1551-1556. doi: 10.1161/HYPERTENSIONAHA.119.14682. Epub 2020 May 4. PMID:32362230

[Cognitive Function Assessment in Patients on Moderate- or High-Intensity Statin Therapy.](#)

Roy S, Hyman D, Ayyala S, Bakhshi A, Kim SH, Anoruo N, Weinstock J, Balogun A, D'Souza M, Filatova N, Penabad J, Shah P, Perez C, Mehta A, Hunter K.

J Clin Med Res. 2020 Apr;12(4):255-265. doi: 10.14740/jocmr4144. Epub 2020 Mar 30.

PMID:32362974



Asthma and Allergy

[A novel whole blood gene expression signature for asthma, dermatitis, and rhinitis multimorbidity in children and adolescents.](#)

Lemonnier N, Melén E, Jiang Y, Joly S, Ménard C, Aguilar D, Acosta-Perez E, Bergström A, Boutaoui N, Bustamante M, Canino G, Forno E, Ramon González J, Garcia-Aymerich J, Gruziova O, Guerra S, Heinrich J, Kull I, Ibarluzea Maurologoitia J, Santa-Marina Rodriguez L, Thiering E, Wickman M, Akdis C, Akdis M, Chen W, Keil T, Koppelman GH, Siroux V, Xu CJ, Hainaut P, Standl M, Sunyer J, Celedón JC, Maria Antó J, Bousquet J. Allergy. 2020 Apr 11. doi: 10.1111/all.14314. [Epub ahead of print]

PMID: 32277847

[Correction to: A geographic identifier assignment algorithm with Bayesian variable selection to identify neighborhood factors associated with emergency department visit disparities for asthma.](#)

Bozigar M, Lawson A, Pearce J, King K, Svendsen E.

Int J Health Geogr. 2020 Apr 21;19(1):17. doi: 10.1186/s12942-020-00206-4.

PMID:32316982

[Novel KITLG/SCF Regulatory Variants Are Associated with Lung Function in African American Children with Asthma.](#)

Mak ACY, Sajuthi S, Joo J, Xiao S, Sleiman PM, White MJ, Lee EY, Saef B, Hu D, Gui H, Keys KL, Lurmann F, Jain D, Abecasis G, Kang HM, Nickerson DA, Germer S, Zody MC, Winterkorn L, Reeves C, Huntsman S, Eng C, Salazar S, Oh SS, Gilliland FD, Chen Z, Kumar R, Martínez FD, Wu AC, Ziv E, Hakonarson H, Himes BE, Williams LK, Seibold MA, Burchard EG.

Genetics. 2020 Apr 23. pii: genetics.303231.2020. doi: 10.1534/genetics.120.303231. [Epub ahead of print]

PMID: 32327564

[Genome-wide analysis highlights contribution of immune system pathways to the genetic architecture of asthma.](#)

Han Y, Jia Q, Jahani PS, Hurrell BP, Pan C, Huang P, Gukasyan J, Woodward NC, Eskin E, Gilliland FD, Akbari O, Hartiala JA, Allayee H.

Nat Commun. 2020 Apr 15;11(1):1776. doi: 10.1038/s41467-020-15649-3.

PMID: 32296059

[Patterns and determinants of exhaled nitric oxide trajectories in schoolchildren over a 7-year period.](#)

Garcia E, Zhang Y, Rappaport EB, Berhane K, Muchmore P, Silkoff PE, Molshatzki N, Gilliland FD, Eckel SP. Eur Respir J. 2020 Apr 16. pii: 2000011. doi: 10.1183/13993003.00011-2020. [Epub ahead of print]

PMID: 32299857

[Association of Dietary Fiber on Asthma, Respiratory Symptoms and Inflammation in the Adult NHANES Population.](#)

Saeed MA, Gribben KC, Alam M, Lyden ER, Hanson CK, LeVan TD.

Ann Am Thorac Soc. 2020 May 5. doi: 10.1513/AnnalsATS.201910-776OC. [Epub ahead of print]

PMID: 32369709

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

[Peripheral Blood Flow Changes to Cutaneous and Muscular Beds in Response to Acute Hookah Smoking.](#)



Rezk-Hanna M, Nelson MD, Rader F, Benowitz NL, Rosenberry R, Chang LC, Li N, Tashkin DP, Elashoff RM, Victor RG.

Am J Cardiol. 2020 Jun 1;125(11):1725-1731. doi: 10.1016/j.amjcard.2020.02.042. Epub 2020 Mar 14. PMID: 32278465

Application of High-Resolution Mass Spectrometry and a Theoretical Model to the Quantification of Multifunctional Carbonyls and Organic Acids in e-Cigarette Aerosol.

Li Y, Burns AE, Burke GJP, Poindexter ME, Madl AK, Pinkerton KE, Nguyen TB.

Environ Sci Technol. 2020 Apr 23. doi: 10.1021/acs.est.9b07387. [Epub ahead of print] PMID: 32271013

Differences in flavourant levels and synthetic coolant use between USA, EU and Canadian Juul products.

Erythropel HC, Anastas PT, Krishnan-Sarin S, O'Malley SS, Jordt SE, Zimmerman JB.

Tob Control. 2020 Apr 27. pii: tobaccocontrol-2019-055500. doi: 10.1136/tobaccocontrol-2019-055500. [Epub ahead of print] PMID:32341193

Occupational Injuries and Exposures

Effects of stretching on muscle activation in gas cylinder handling.

Wadeson A, White MM, Zhang W, Lau MY, Kaber DB.

Work. 2020 May 11. doi: 10.3233/WOR-203159. [Epub ahead of print]

PMID: 32417822

Impact of New Occupational and Clinical Standards on Spirometry.

Townsend MC, Graham BL.

J Occup Environ Med. 2020 May;62(5):e231-e232. doi: 10.1097/JOM.0000000000001871. No abstract available.

PMID: 32398506

Epigenome-Wide Association Study of DNA Methylation and Adult Asthma in the Agricultural Lung Health Study.

Hoang TT, Sikdar S, Xu CJ, Lee MK, Cardwell J, Forno E, Imboden M, Jeong A, Madore AM, Qi C, Wang T, Bennett BD, Ward JM, Parks CG, Beane-Freeman LE, King D, Motsinger-Reif A, Umbach DM, Wyss AB, Schwartz DA, Celedón JC, Laprise C, Ober C, Probst-Hensch N, Yang IV, Koppelman GH, London SJ.

Eur Respir J. 2020 May 7. pii: 2000217. doi: 10.1183/13993003.00217-2020. [Epub ahead of print]

PMID:32381493

Characterization of inhalable endotoxin, glucan, and dust exposures in Iowa farmers.

Sauvé JF, Locke SJ, Josse PR, Stapleton EM, Metwali N, Altmaier RW, Andreotti G, Thorne PS, Hofmann JN, Beane Freeman LE, Friesen MC.

Int J Hyg Environ Health. 2020 Apr 17;228:113525. doi: 10.1016/j.ijheh.2020.113525. [Epub ahead of print]

PMID:32311660

Work-related asthma in cobalt-exposed workers.

Al-Abcha A, Wang L, Reilly MJ, Rosenman KD.

J Asthma. 2020 May 2:1-10. doi: 10.1080/02770903.2020.1759090. [Epub ahead of print]

PMID:32308078



Molecular Characterization and Experimental Utility of Monoclonal Antibodies with Specificity for Aliphatic Di- and Polyisocyanates.

Wisniewski AV, Liu J.

Monoclon Antib Immunodiagn Immunother. 2020 Apr 17. doi: 10.1089/mab.2020.0006. [Epub ahead of print]

PMID: 32302507

Occupational Exposures and Lung Cancer.

Christiani DC.

Am J Respir Crit Care Med. 2020 May 12. doi: 10.1164/rccm.202004-1404ED. [Epub ahead of print] No abstract available.

PMID: 32396774

Work-Related Asthma Among Certified Nurse Aides in Texas.

Patel J, Gimeno Ruiz de Porras D, Mitchell LE, Patel RR, De Los Reyes J, Delclos GL.

Workplace Health Saf. 2020 May 4:2165079920914322. doi: 10.1177/2165079920914322. [Epub ahead of print]

PMID:32364022

Cellular Mechanisms

Lung Development Genes and Adult Lung Function.

Portas L, Pereira M, Shaheen SO, Wyss AB, London SJ, Burney PGJ, Hind M, Dean CH, Minelli C.

Am J Respir Crit Care Med. 2020 May 11. doi: 10.1164/rccm.201912-2338OC. [Epub ahead of print]

PMID: 32392078

Transcapillary PO₂ Gradients in contracting muscles across the fibre type and oxidative continuum.

Colburn TD, Hirai DM, Craig JC, Ferguson SK, Weber RE, Schulze KM, Behnke BJ, Musch TI, Poole DC.

J Physiol. 2020 May 22. doi: 10.1113/JP279608. [Epub ahead of print]

PMID: 32445225

Cancer

Protein-altering germline mutations implicate novel genes related to lung cancer development.

Ji X, Mukherjee S, Landi MT, Bosse Y, Joubert P, Zhu D, Gorlov I, Xiao X, Han Y, Gorlova O, Hung RJ, Brhane Y, Carreras-Torres R, Christiani DC, Caporaso N, Johansson M, Liu G, Bojesen SE, Le Marchand L, Albanes D, Bickebøller H, Aldrich MC, Bush WS, Tardon A, Rennert G, Chen C, Byun J, Dragnev KH, Field JK, Kiemeny LF, Lazarus P, Zienolddiny S, Lam S, Schabath MB, Andrew AS, Bertazzi PA, Pesatori AC, Diao N, Su L, Song L, Zhang R, Leigh N, Johansen JS, Møller P, Saliba W, Haiman C, Wilkens L, Fernandez-Somoano A, Fernandez-Tardon G, Heijden EHFV, Kim JH, Davies MPA, Marcus MW, Brunnström H, Manjer J, Melander O, Muller DC, Overvad K, Trichopoulou A, Tumino R, Goodman GE, Cox A, Taylor F, Woll P, Wichmann E, Muley T, Risch A, Rosenberger A, Grankvist K, Johansson M, Shepherd F, Tsao MS, Arnold SM, Haura EB, Bolca C, Holcatova I, Janout V, Kontic M, Lissowska J, Mukeria A, Ognjanovic S, Orłowski TM, Scelo G, Swiatkowska B, Zaridze D, Bakke P, Skaug V, Butler LM, Offit K, Srinivasan P, Bandlamudi C, Hellmann MD, Solit DB, Robson ME, Rudin CM, Stadler ZK, Taylor BS, Berger MF, Houlston R, McLaughlin J, Stevens V, Nickle DC, Obeidat M, Timens W, Artigas MS, Shete S, Brenner H, Chanock S, Brennan P, McKay JD, Amos CI.

Nat Commun. 2020 May 11;11(1):2220. doi: 10.1038/s41467-020-15905-6.

PMID:32393777



[EBUS-FNA cytologic-histologic correlation of PD-L1 immunohistochemistry in non-small cell lung cancer.](#)

Jug R, Giovacchini CX, Liu B, Green CL, Clarke JM, Mahmood K, Pavlisko EN.

J Am Soc Cytopathol. 2020 Apr 6. pii: S2213-2945(20)30061-2. doi: 10.1016/j.jasc.2020.04.003. [Epub ahead of print]

PMID:32336671

[Daratumumab, Lenalidomide, Bortezomib, & Dexamethasone for Transplant-eligible Newly Diagnosed Multiple Myeloma: GRIFFIN.](#)

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[The Association Between Neighborhood Socioeconomic Disadvantage and Chronic Obstructive Pulmonary Disease.](#)

Galiatsatos P, Woo H, Paulin LM, Kind A, Putcha N, Gassett AJ, Cooper CB, Dransfield MT, Parekh TM, Oates GR, Barr RG, Comellas AP, Han MK, Peters SP, Krishnan JA, Labaki WW, McCormack MC, Kaufman JD, Hansel NN.

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[Letter to the Editor: Response by Authors.](#)

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PMID: 32324979

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[The Association Between Neighborhood Socioeconomic Disadvantage and Chronic Obstructive Pulmonary Disease.](#)

Galiatsatos P, Woo H, Paulin LM, Kind A, Putcha N, Gassett AJ, Cooper CB, Dransfield MT, Parekh TM, Oates GR, Barr RG, Comellas AP, Han MK, Peters SP, Krishnan JA, Labaki WW, McCormack MC, Kaufman JD, Hansel NN.

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[SARS-CoV-2 / COVID-19](#)

[Nebulized Treatments and the Possible Risk of Coronavirus Transmission: Where Is the Evidence?](#)

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PMID: 32411315

[The COronavirus Pandemic Epidemiology \(COPE\) Consortium: A Call to Action.](#)

Chan AT, Drew DA, Nguyen LH, Joshi AD, Ma W, Guo CG, Lo CH, Mehta RS, Kwon S, Sikavi DR, Magicheva-Gupta MV, Fatehi ZS, Flynn JJ, Leonardo BM, Albert CM, Andreotti G, Beane Freeman LE, Balasubramanian BA, Brownstein JS, Bruinsma F, Cowan AN, Deka A, Ernst ME, Figueiredo JC, Franks PW, Gardner CD, Ghobrial IM,



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Updates from Terrorism and Inhalation Disasters Section



TID Section Announcements

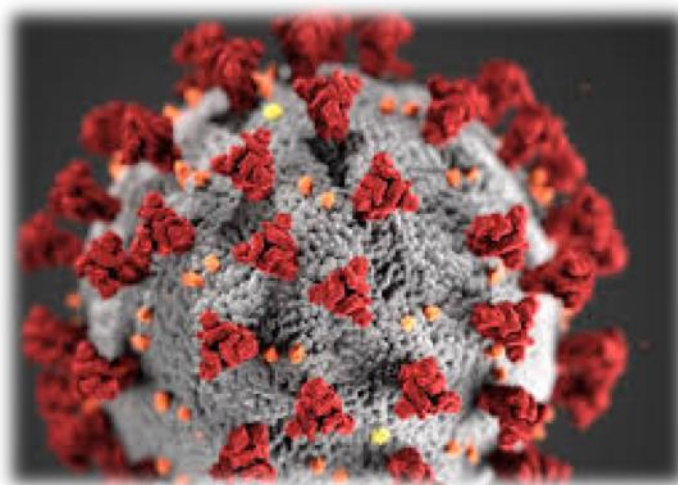
Please cast your [vote](#) for your TID section leadership before Friday, May 29th 2020

During this COVID-19 pandemic situation, while the state and federal administrations are trying to curb the spread, please do your part by staying at home, maintaining social distancing, and washing hands frequently. It is our responsibility to flatten the curve. Use [CDC's guidelines](#) for cloth facemasks.

COVID-19 resources on our TID Section website

We have updated our TID Section website with some of the resources and hyperlinks to federal agencies such as CDC, FDA, and NIH. Please check out.

<https://www.thoracic.org/members/assemblies/sections/tid/covid-19.php>



#COVID-19Crisis

#FlattenTheCurve

#SocialDistancing

#PersonalHygiene

#KudosToAllHealthProfessionals



Styrene gas leak kills at least 12 people and sickens hundreds of people in Visakhapatnam, India



On May 7th 2020, toxic styrene gas leaked from LG Polymers chemical plant in Visakhapatnam and killed 12 people, caused hospitalization of hundreds of victims. As the leak happened at around 3 AM (IST), most of the victims died in their sleep or before they received medical treatment. Several hundreds of animals of various species were also found dead due to gas inhalation. The industrial unit was operating right in the middle of a thickly populated area without due Environmental

Clearance (EC). While the investigation is going on the reasons behind gas leak, reports suggest that the company had carried out expansion in production capacity two years ago in 2018 and was carrying out operations illegally, with no required clearances.



(both images were copied from public domain)

<https://www.bbc.com/news/world-asia-india-52723762>

<https://www.theguardian.com/world/2020/may/07/gas-leak-at-chemical-factory-in-india-kills-hospitalises-lg-polymers>

Recent publications from TID members and relevant to TID section:

1. [Impact on rats from acute intratracheal inhalation exposures to WTC dusts.](#)

Cohen MD, Prophete C, Horton L, Sisco M, Park SH, Lee HW, Zelikoff J, Chen LC. *Inhal Toxicol*. 2020 May 25:1-13. doi: 10.1080/08958378.2020.1768322. Online ahead of print. PMID: 32448006

2. [Discovery of Radiocesium-bearing Particles in Masks Worn by Members of the Public in Fukushima in](#)



Spring 2013.

Higaki S, Kurihara Y, Takahashi Y. Health Phys. 2020 Jun;118(6):656-663. doi: 10.1097/HP.0000000000001148. PMID: 32348098

3. [Quantitative CT Evidence of Airway Inflammation in WTC Workers and Volunteers with Low FVC Spirometric Pattern.](#)

Weber J, Reeves AP, Doucette JT, Jeon Y, Sood A, San José Estépar R, Celedón JC, de la Hoz RE. Lung. 2020 Jun;198(3):555-563. doi: 10.1007/s00408-020-00350-5. Epub 2020 Apr 1. PMID: 32239319

4. [Global Characteristics of Chemical, Biological, and Radiological Poison Use in Terrorist Attacks.](#)

Aydin B. Prehosp Disaster Med. 2020 Jun;35(3):260-266. doi: 10.1017/S1049023X20000394. Epub 2020 Apr 2. PMID: 32238210

5. [Application of calcium nebulization for mass exposure to an accidental hydrofluoric acid spill.](#)

Choe MSP, Lee MJ, Seo KS, Kam S, Kim KY, Je D, Kim SH, Nho WY, Park HI, Shin S, Ryoo HW. Burns. 2020 Mar 21:S0305-4179(19)30718-1. doi: 10.1016/j.burns.2020.02.015. Online ahead of print. PMID: 32209280

6. [Impact on rats from acute intratracheal inhalation exposures to WTC dusts.](#)

Cohen MD, Prophete C, Horton L, Sisco M, Park SH, Lee HW, Zelikoff J, Chen LC. Inhal Toxicol. 2020 May 25:1-13. doi: 10.1080/08958378.2020.1768322. Online ahead of print. PMID: 32448006

7. [Discovery of Radiocesium-bearing Particles in Masks Worn by Members of the Public in Fukushima in Spring 2013.](#)

Higaki S, Kurihara Y, Takahashi Y. Health Phys. 2020 Jun;118(6):656-663. doi: 10.1097/HP.0000000000001148. PMID: 32348098

8. [Quantitative CT Evidence of Airway Inflammation in WTC Workers and Volunteers with Low FVC Spirometric Pattern.](#)

Weber J, Reeves AP, Doucette JT, Jeon Y, Sood A, San José Estépar R, Celedón JC, de la Hoz RE. Lung. 2020 Jun;198(3):555-563. doi: 10.1007/s00408-020-00350-5. Epub 2020 Apr 1. PMID: 32239319

9. [Global Characteristics of Chemical, Biological, and Radiological Poison Use in Terrorist Attacks.](#)

Aydin B. Prehosp Disaster Med. 2020 Jun;35(3):260-266. doi: 10.1017/S1049023X20000394. Epub 2020 Apr 2. PMID: 32238210

10. [Application of calcium nebulization for mass exposure to an accidental hydrofluoric acid spill.](#)

Choe MSP, Lee MJ, Seo KS, Kam S, Kim KY, Je D, Kim SH, Nho WY, Park HI, Shin S, Ryoo HW. Burns. 2020 Mar 21:S0305-4179(19)30718-1. doi: 10.1016/j.burns.2020.02.015. Online ahead of print. PMID: 32209280



11. [Acute cytotoxicity and increased vascular endothelial growth factor after in vitro nitrogen mustard vapor exposure.](#) **McGraw MD**, Kim SY, White CW, Veress LA. Ann N Y Acad Sci. 2020 May 14. doi: 10.1111/nyas.14367. Online ahead of print.PMID: 32408394

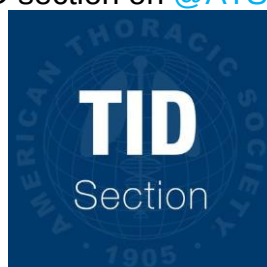
12. [A neuroglobin-based high-affinity ligand trap reverses carbon monoxide-induced mitochondrial poisoning.](#) Rose JJ, Bocian KA, Xu Q, Wang L, DeMartino AW, Chen X, Corey CG, Guimarães DA, Azarov I, Huang XN, Tong Q, Guo L, Nouraie M, McTiernan CF, O'Donnell CP, Tejero J, Shiva S, Gladwin M. J Biol Chem. 2020 Mar 23:jbc.RA119.010593. doi: 10.1074/jbc.RA119.010593. Epub ahead of print. PMID: 32205448.

13. [Activation of a nerve injury transcriptional signature in airway-innervating sensory neurons after lipopolysaccharide-induced lung inflammation.](#) Kaelberer MM, Caceres AI, **Jordt SE**. Am J Physiol Lung Cell Mol Physiol. 2020 May 1;318(5):L953-L964. doi: 10.1152/ajplung.00403.2019. Epub 2020 Mar 11.PMID: 32159971

14. [Urgent reconsideration of lung edema as a preventable outcome in COVID-19: Inhibition of TRPV4 represents a promising and feasible approach.](#) Kuebler WM, **Jordt SE**, Liedtke WB. Am J Physiol Lung Cell Mol Physiol. 2020 May 13. doi: 10.1152/ajplung.00161.2020. Online ahead of print.PMID: 32401673 **Free article.**



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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.



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.

Also, with information evolving as quickly as it is and responding to requests from members, ATS has created a new channel through Slack that might be useful if you wish to share information with each other and your colleagues. We are sending this to ATS leaders only, however, you are welcome to invite other ATS member colleagues to join. The ATS channel ats-covid19.slack.com can be accessed [HERE](#).

Disclaimer: Staff will be monitoring postings but will not be able to judge content, and thus, these are simply platforms for exchange, with everyone understanding that nothing posted is official, ATS-vetted information. Also, please keep in mind HIPPA regulations when sharing information.

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](#).

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. It states that:

"Concern has been raised that pulmonary function testing could represent a potential avenue for COVID 19 transmission due to the congregation of patients with lung disease and because of the potential for coughing and droplet formation surrounding pulmonary function testing procedures."

The Committee recommends "that pulmonary function testing be limited to tests that are only essential for immediate treatment decisions, that the type of pulmonary function testing be limited to the most essential tests when possible, and that measures to protect both the staff and individuals being tested should be put in place."

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>



Enforcement memo here (with specific examples of types of testing to be postponed):

<https://www.osha.gov/memos/2020-04-16/discretion-enforcement-when-considering-employers-good-faith-efforts-during>.

Also NIOSH continues to recommend that NIOSH-approved spirometry courses be suspended due to the risk of cross-contamination from asymptomatic infected students to non-infected students.

[Webalogue by the Ecohealth Knowledge to Action Research Group](#)

Check out the recorded Webalogue by the Ecohealth Knowledge to Action Research Group: Learning for Planetary Health: Early Lessons from a Pandemic, available [HERE](#) (link directly to video [HERE](#)). The summary of the Webalogue is as follows:

We are experiencing the greatest challenge for public health in several generations with the COVID-19 pandemic, and with this challenge will emerge unprecedented opportunity as governments and citizens prepare for a post-COVID future. This webinar will begin by exploring the origins of the outbreak with lessons from the animal-human interface. We will then learn from previous economic collapses and what these lessons teach us about the coming weeks and months as we emerge from the current wave of disease and devastated economy to become a more healthy planet. We will begin exploring the relationships and resources needed for a recovery that makes us stronger and better able to face the challenges to planetary health that are even more critical than the COVID-19 pandemic, but that appear less imminent to society. One goal is to articulate a shared vision of this future where society bounces back, but bounces back to a better place than our pre-pandemic world.

Moderator: Chris Buse, Centre for Environmental Assessment Research, UBC

Speakers:

- Mira Ziolo, Consulting Veterinarian at Wildlife Rescue Association of BC, PhD Student, UBC Interdisciplinary PhD student
- Tim Takaro, Professor, Faculty of Health Sciences, Simon Fraser University
- Trevor Hancock, Retired Professor and Senior Scholar, School of Public Health and Social Policy, University of Victoria

[Other News](#)

[Federal World Trade Center Health Program Research Agenda; Request for Information](#)

The World Trade Center Health Program Research Agenda published a notice (see attachment), with the purpose of soliciting public comment on the scope of upcoming research funding cycle for fiscal year 2021. Individuals interested in submitting comments are directed to this URL:

<https://www.regulations.gov/docket?D=CDC-2020-0035>. The comment period will close at midnight on June 1, 2020.



ATS 2020 International Conference

As you may know the ATS 2020 International Conference has been canceled.

Stay tuned for the latest information about ATS 2020 Virtual!

[CLICK HERE FOR MORE INFO](#)
[ATS 2020 ABSTRACTS ONLINE](#)

In a world of uncertainty, the American Thoracic Society remains steadfastly committed to bringing you the latest scientific findings and analysis of the most critical issues impacting pulmonary, critical care, and sleep medicine. The planning for ATS 2020 Virtual is in high gear! Watch your inbox for details on the session line up, registration details and key dates.



The ATS 2020 Virtual program features:

- ✓ Clinical Trials
- ✓ The Clinical Year in Review Series
- ✓ Case-Based Presentations
- ✓ Infectious Diseases
- ✓ Lung Regeneration (and Repair)
- ✓ Environmental and Inhaled Factors That Contribute to Lung Injury
- ✓ Lung Injury and Repair Mechanisms
- ✓ Clinical Diagnosis and Management: Lung Disease, Sleep, and Critical Care
- ✓ Big Data from Clinic and Cells — Managing Disease
- ✓ ePosters of the Scientific Research, Case Reports, and Late Breaking Abstracts



ATS 2020 Virtual will also features an exhibit hall and a variety of industry-sponsored learning opportunities.

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