

1. Ahmed MM, Li P, Meece LE, Bian J, Shao H. A varied approach to left ventricular assist device follow-up improves cost-effectiveness. *Current medical research and opinion* 2021;1-510.1080/03007995.2021.1948395
2. Ahn H, Jackson N, An K, Fillingim RB, Miao H, Lee M, Ko J, Galle K, Lee MA. Relationship between Acculturative Stress and Pain Catastrophizing in Korean Americans. *Journal of immigrant and minority health* 2021;23:741-610.1007/s10903-020-01083-6
3. Ahrens AP, Culpepper T, Saldivar B, Anton S, Stoll S, Handberg EM, Xu K, Pepine C, Triplett EW, Aggarwal M. A Six-Day, Lifestyle-Based Immersion Program Mitigates Cardiovascular Risk Factors and Induces Shifts in Gut Microbiota, Specifically Lachnospiraceae, Ruminococcaceae, Faecalibacterium prausnitzii: A Pilot Study. *Nutrients* 2021;13.PMC853916410.3390/nu13103459
4. Allen LL, Uphold CR, Koniaris-Rambaud C, House K, Gray F, Fitzgerald L, Vaughan C, Johnson TM, 2nd. Palliative care aspects of wound healing in complex patients: a case report. *Journal of wound care* 2021;30:845-5210.12968/jowc.2021.30.10.845
5. Alzghoul BN, Amer FN, Barb D, Innabi A, Mardini MT, Bai C, Alzghoul B, Al-Hakim T, Singh N, Buchanan M, Serchuck L, Gomez Manjarres D, Woodmansee WW, Maier LA, Patel DC. Prevalence and characteristics of self-reported hypothyroidism and its association with nonorgan-specific manifestations in US sarcoidosis patients: a nationwide registry study. *ERJ open research* 2021;7.PMC8005680.10.1183/23120541.00754-2020
6. Anton S, Das SK, McLaren C, Roberts SB. Application of social cognitive theory in weight management: Time for a biological component? *Obesity (Silver Spring, Md)* 2021;29:1982-6.PMC861296110.1002/oby.23257
7. Anton S, Ezzati A, Witt D, McLaren C, Vial P. The effects of intermittent fasting regimens in middle-age and older adults: Current state of evidence. *Experimental gerontology* 2021;156:11161710.1016/j.exger.2021.111617
8. Apple CG, Kelly LS, Kannan KB, Ungaro RF, Moore FA, Brakenridge SC, Moldawer LL, Efron PA, Mohr AM. Ineffective Erythropoietin Response to Anemia in Sepsis. *Surgical infections* 202110.1089/sur.2021.152
9. Baharloo R, Principe JC, Fillingim RB, Wallace MR, Zou B, Crispen PL, Parvataneni HK, Prieto HA, Machuca TN, Mi X, Hughes SJ, Murad GJA, Rashidi P, Tighe PJ. Slow Dynamics of Acute Postoperative Pain Intensity Time Series Determined via Wavelet Analysis Are Associated With the Risk of Severe Postoperative Day 30 Pain. *Anesthesia and analgesia* 2021;132:1465-74.PMC808681410.1213/ane.0000000000005385
10. Bai C, Chen YP, Wolach A, Anthony L, Mardini MT. Using Smartwatches to Detect Face Touching. *Sensors (Basel, Switzerland)* 2021;21.PMC851300610.3390/s21196528
11. Barker G, Leeuwenburgh C, Brusko T, Moldawer L, Reddy ST, Guirgis FW. Lipid and Lipoprotein Dysregulation in Sepsis: Clinical and Mechanistic Insights into Chronic Critical Illness. *Journal of clinical medicine* 2021;10.PMC807100710.3390/jcm10081693
12. Barker W, Quinonez C, Greig MT, Behar R, Chirinos C, Rodriguez RA, Rosselli M, Rodriguez MJ, Cid RC, Rundek T, McFarland K, Hanson K, Smith G, DeKosky S, Vaillancourt D, Adjouadi M, Marsiske M, Ertekin-Taner N, Golde T, Loewenstein DA, Duara R. Utility of Plasma Neurofilament Light in the 1Florida Alzheimer's Disease Research Center (ADRC). *Journal of Alzheimer's disease : JAD* 2021;79:59-70.PMC790297110.3233/jad-200901
13. Barter J, Kumar A, Bean L, Ciesla M, Foster TC. Adulthood systemic inflammation accelerates the trajectory of age-related cognitive decline. *Aging* 2021;13:22092-108.PMC850727510.18632/aging.203588
14. Beavers DP, Kritchevsky SB, Gill TM, Ambrosius WT, Anton SD, Fielding RA, King AC, Rejeski WJ, Lovato L, McDermott MM, Newman AB, Pahor M, Walkup MP, Tracy RP, Manini TM. Elevated IL-6 and CRP Levels Are Associated With Incident Self-Reported Major Mobility Disability: A Pooled Analysis of Older Adults With Slow Gait Speed. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;76:2293-9.PMC859898310.1093/gerona/ghab093
15. Bishnoi R, Xie Z, Shah C, Bian J, Murthy HS, Wingard JR, Farhadfar N. Real-world experience of carfilzomib-associated cardiovascular adverse events: SEER-Medicare data set analysis. *Cancer medicine* 2021;10:70-8.PMC782647110.1002/cam4.3568
16. Booker SQ, Bartley EJ, Powell-Roach K, Palit S, Morais C, Thompson OJ, Cruz-Almeida Y, Fillingim RB. The Imperative for Racial Equality in Pain Science: A Way Forward. *The journal of pain* 2021;22:1578-8510.1016/j.jpain.2021.06.008
17. Botosaneanu A, Chen H, Ambrosius WT, Allore HG, Anton S, Folta SC, King AC, Nicklas BJ, Spring B, Strotmeyer ES, Gill TM. Metabolic syndrome and the benefit of a physical activity intervention on lower-extremity function: Results from a randomized clinical trial. *Experimental gerontology* 2021;150:111343.PMC838882510.1016.j.exger.2021.111343
18. Boutzoukas EM, O'Shea A, Albizu A, Evangelista ND, Hausman HK, Kraft JN, Van Etten EJ, Bharadwaj PK,

- Smith SG, Song H, Porges EC, Hishaw A, DeKosky ST, Wu SS, Marsiske M, Alexander GE, Cohen R, Woods AJ. Frontal White Matter Hyperintensities and Executive Functioning Performance in Older Adults. *Frontiers in aging neuroscience* 2021;13:672535.PMC827386410.3389/fnagi.2021.672535
19. Brakenridge SC, Starostik P, Ghita G, Midic U, Darden D, Fenner B, Wacker J, Efron PA, Liesenfeld O, Sweeney TE, Moldawer LL. A Transcriptomic Severity Metric That Predicts Clinical Outcomes in Critically Ill Surgical Sepsis Patients. *Critical care explorations* 2021;3:e0554.PMC852286610.1097/cce.0000000000000554
 20. Branco-de-Almeida LS, Cruz-Almeida Y, Gonzalez-Marrero Y, Kudsi R, de Oliveira ICV, Dolia B, Huang H, Aukhil I, Harrison P, Shaddox LM. Treatment of localized aggressive periodontitis alters local host immunoinflammatory profiles: A long-term evaluation. *Journal of clinical periodontology* 2021;48:237-48.PMC782536310.1111/jcpe.13404
 21. Brown J, Ni Z, Mohanty C, Bacher R, Kendzierski C. Normalization by distributional resampling of high throughput single-cell RNA-sequencing data. *Bioinformatics (Oxford, England)* 202110.1093/bioinformatics/btab450
 22. Brown JD, Vouri SM, Manini TM. Survey-reported medication changes among older adults during the SARS-CoV-2 (COVID-19) pandemic. *Research in social & administrative pharmacy : RSAP* 2021;17:1478-82.PMC765951210.1016/j.sapharm.2020.11.005
 23. Brown JD, Wang CY, Groessl EJ, Pahor M, Manini TM. Three-Year, Postintervention, Follow-up Comparison of Health Care Resource Utilization and Costs in the Lifestyle Interventions and Independence for Elders (LIFE) Study. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;76:272-6.PMC781247910.1093/gerona/glaa088
 24. Budamagunta V, Foster TC, Zhou D. Cellular senescence in lymphoid organs and immunosenescence. *Aging* 2021;13:19920-41.PMC838653310.18632/aging.203405
 25. Budamagunta V, Manohar-Sindhu S, Yang Y, He Y, Traktuev DO, Foster TC, Zhou D. Senescence-associated hyper-activation to inflammatory stimuli in vitro. *Aging* 2021;13:19088-107.PMC838653610.18632/aging.203396
 26. Butera KA, Bishop MD, Greenfield WH, 3rd, Staud R, Wallace MR, Borsa PA, Fillingim RB, George SZ. Sensory and Psychological Factors Predict Exercise-Induced Shoulder Injury Responses in a High-Risk Phenotype Cohort. *The journal of pain* 202110.1016/j.jpain.2020.12.002
 27. Cardoso J, Apagueno B, Lysne P, Hoyos L, Porges E, Riley JL, Fillingim RB, Woods AJ, Cohen R, Cruz-Almeida Y. Pain and the Montreal Cognitive Assessment (MoCA) in Aging. *Pain medicine (Malden, Mass)* 2021;22:1776-83.PMC834691510.1093/pm/pnab003
 28. Cawthon PM, Patel SM, Kritchevsky SB, Newman AB, Santanasto A, Kiel DP, Trivison TG, Lane N, Cummings SR, Orwoll ES, Duchowny KA, Kwok T, Hirani V, Schousboe J, Karlsson MK, Mellström D, Ohlsson C, Ljunggren Ö, Xue QL, Shardell M, Jordan JM, Pencina KM, Fielding RA, Magaziner J, Correa-de-Araujo R, Bhasin S, Manini TM. What Cut-Point in Gait Speed Best Discriminates Community-Dwelling Older Adults With Mobility Complaints From Those Without? A Pooled Analysis From the Sarcopenia Definitions and Outcomes Consortium. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;76:e321-e7.PMC843698610.1093/gerona/glab183
 29. Cenko E, Chen H, Gill TM, Glynn NW, Henderson RM, King AC, Pahor M, Qiu P, Rego A, Reid KF, Tudor-Locke C, Valiani V, You L, Manini TM. Ratings of Perceived Exertion During Walking: Predicting Major Mobility Disability and Effect of Structured Physical Activity in Mobility-Limited Older Adults. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;76:e264-e71.PMC843697610.1093/gerona/glab036
 30. Chen G, Hong YR, Wilkie DJ, Kittleson S, Huo J, Bian J. Geographic Variation in Knowledge of Palliative Care Among US Adults: Findings From 2018 Health Information National Trends Survey. *The American journal of hospice & palliative care* 2021;38:291-9.PMC785528910.1177/1049909120946266
 31. Chen Z, Liu X, Hogan W, Shenkman E, Bian J. Applications of artificial intelligence in drug development using real-world data. *Drug discovery today* 2021;26:1256-6410.1016/j.drudis.2020.12.013
 32. Chen Z, Zhang H, Guo Y, George TJ, Prospero M, Hogan WR, He Z, Shenkman EA, Wang F, Bian J. Exploring the feasibility of using real-world data from a large clinical data research network to simulate clinical trials of Alzheimer's disease. *NPJ digital medicine* 2021;4:84.PMC812183710.1038/s41746-021-00452-1
 33. Clark DJ, Chatterjee SA, Skinner JW, Lysne PE, Sumonthee C, Wu SS, Cohen RA, Rose DK, Woods AJ. Combining Frontal Transcranial Direct Current Stimulation With Walking Rehabilitation to Enhance Mobility and Executive Function: A Pilot Clinical Trial. *Neuromodulation : journal of the International Neuromodulation Society* 2021;24:950-9.PMC788974310.1111/ner.13250
 34. Clark DJ, Rose DK, Butera KA, Hoisington B, DeMark L, Chatterjee SA, Hawkins KA, Otzel DM, Skinner JW, Christou EA, Wu SS, Fox EJ. Rehabilitation with accurate adaptability walking tasks or steady state walking:

- A randomized clinical trial in adults post-stroke. *Clinical rehabilitation* 2021;35:1196-20610.1177/02692155211001682
35. Cox MC, Booth M, Ghita G, Wang Z, Gardner A, Hawkins RB, Darden DB, Leeuwenburgh C, Moldawer LL, Moore FA, Efron PA, Anton S, Brakenridge SC. The impact of sarcopenia and acute muscle mass loss on long-term outcomes in critically ill patients with intra-abdominal sepsis. *Journal of cachexia, sarcopenia and muscle* 2021;12:1203-13.PMC851734410.1002/jcsm.12752
 36. Crislip GR, Johnston JG, Douma LG, Costello HM, Juffre A, Boyd K, Li W, Maugans CC, Gutierrez-Monreal M, Esser KA, Bryant AJ, Liu AC, Gumz ML. Circadian Rhythm Effects on the Molecular Regulation of Physiological Systems. *Comprehensive Physiology* 2021;12:2769-9810.1002/cphy.c210011
 37. Cruz-Almeida Y, Coombes S, Febo M. Pain differences in neurite orientation dispersion and density imaging measures among community-dwelling older adults. *Experimental gerontology* 2021;154:11152010.1016/j.exger.2021.111520
 38. Cruz-Almeida Y, Forbes M, Cohen RC, Woods AJ, Fillingim RB, Riley JL, 3rd, Porges ES. Brain gamma-aminobutyric acid, but not glutamine and glutamate levels are lower in older adults with chronic musculoskeletal pain: considerations by sex and brain location. *Pain reports* 2021;6:e952.PMC842339310.1097/pr9.0000000000000952
 39. Cruz-Almeida Y, Porges E. Additional considerations for studying brain metabolite levels across pain conditions using proton magnetic resonance spectroscopy. *NeuroImage* 2021;224:11739210.1016/j.neuroimage.2020.117392
 40. Curtis AF, Dzierzewski JM, Buman MP, Giacobbi PR, Roberts BL, Aiken-Morgan AT, Marsiske M, McCrae CS. Preliminary investigation of interactive associations of sleep and pain with cognition in sedentary middle-aged and older adults. *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine* 2021;17:233-42.PMC785320510.5664/jcsm.8856
 41. Darden DB, Bacher R, Brusko MA, Knight P, Hawkins RB, Cox MC, Dirain ML, Ungaro R, Nacionales DC, Rincon JC, Gauthier ML, Kladde M, Bihorac A, Brusko TM, Moore FA, Brakenridge SC, Mohr AM, Moldawer LL, Efron PA. Single-Cell RNA-seq of Human Myeloid-Derived Suppressor Cells in Late Sepsis Reveals Multiple Subsets With Unique Transcriptional Responses: A Pilot Study. *Shock (Augusta, Ga)* 2021;55:587-95.PMC801967910.1097/shk.0000000000001671
 42. Darden DB, Brakenridge SC, Efron PA, Ghita GL, Fenner BP, Kelly LS, Mohr AM, Moldawer LL, Moore FA. Biomarker Evidence of the Persistent Inflammation, Immunosuppression and Catabolism Syndrome (PICS) in Chronic Critical Illness (CCI) After Surgical Sepsis. *Annals of surgery* 2021;274:664-73.PMC859225510.1097/sla.0000000000005067
 43. Darden DB, Dong X, Brusko MA, Kelly L, Fenner B, Rincon JC, Dirain ML, Ungaro R, Nacionales DC, Gauthier M, Kladde M, Brusko TM, Bihorac A, Moore FA, Loftus T, Bacher R, Moldawer LL, Mohr AM, Efron PA. A Novel Single Cell RNA-seq Analysis of Non-Myeloid Circulating Cells in Late Sepsis. *Frontiers in immunology* 2021;12:696536.PMC841541510.3389/fimmu.2021.696536
 44. Darden DB, Fenner BP, Foster T, Larson S, Efron PA. Chronic "sepsis brain" and regulatory T cells - A promising therapeutic target. *Brain, behavior, and immunity* 2021;93:10-1.PMC797950610.1016/j.bbi.2021.01.017
 45. Darden DB, Ghita GL, Wang Z, Stortz JA, Lopez MC, Cox MC, Hawkins RB, Rincon JC, Kelly LS, Fenner BP, Ozrazgat-Baslanti T, Leeuwenburgh C, Bihorac A, Loftus TJ, Moore FA, Brakenridge SC, Baker HV, Bacher R, Mohr AM, Moldawer LL, Efron PA. Chronic Critical Illness Elicits a Unique Circulating Leukocyte Transcriptome in Sepsis Survivors. *Journal of clinical medicine* 2021;10.PMC834810510.3390/jcm10153211
 46. Darden DB, Kelly LS, Fenner BP, Moldawer LL, Mohr AM, Efron PA. Dysregulated Immunity and Immunotherapy after Sepsis. *Journal of clinical medicine* 2021;10.PMC807353610.3390/jcm10081742
 47. Darden DB, Mira JC, Lopez MC, Stortz JA, Fenner BP, Kelly LS, Nacionales DC, Budharaju A, Loftus TJ, Baker HV, Moore FA, Brakenridge SC, Moldawer LL, Mohr AM, Efron PA. Identification of Unique microRNA Expression Patterns in Bone Marrow Hematopoietic Stem and Progenitor Cells after Hemorrhagic Shock and Polytrauma in Young and Old Adult Mice. *The journal of trauma and acute care surgery* 2021;10.1097/ta.0000000000003350
 48. Darden DB, Moore FA, Brakenridge SC, Navarro EB, Anton SD, Leeuwenburgh C, Moldawer LL, Mohr AM, Efron PA, Mankowski RT. The Effect of Aging Physiology on Critical Care. *Critical care clinics* 2021;37:135-50.PMC819428510.1016/j.ccc.2020.08.006
 49. Davoudi A, Mardini MT, Nelson D, Albinali F, Ranka S, Rashidi P, Manini TM. The Effect of Sensor Placement and Number on Physical Activity Recognition and Energy Expenditure Estimation in Older Adults: Validation Study. *JMIR mHealth and uHealth* 2021;9:e23681.PMC812987410.2196/23681

50. De Wit L, Marsiske M, O'Shea D, Kessels RPC, Kurasz AM, DeFeis B, Schaefer N, Smith GE. Procedural Learning in Individuals with Amnesic Mild Cognitive Impairment and Alzheimer's Dementia: a Systematic Review and Meta-analysis. *Neuropsychology review* 2021;31:103-14.PMC788968710.1007/s11065-020-09449-1
51. De Wit L, Piai V, Thangwaritorn P, Johnson B, O'Shea D, Amofa P, Sr., Marsiske M, Kessels RPC, Schaefer N, Smith G. Repetition Priming in Individuals with Amnesic Mild Cognitive Impairment and Alzheimer's Dementia: a Systematic Review and Meta-Analysis. *Neuropsychology review* 2021;31:103-14.PMC788968710.1007/s11065-020-09449-1
52. Ding D, Prolla T, Someya S, Manohar S, Salvi R. Roles of Bak and Bcl-2 in Paraquat-Induced Cochlear Hair Cell Damage. *Neurotoxicity research* 2021;39:1227-37.PMC827776810.1007/s12640-021-00366-6
53. Ding H, Meng L, Liu AC, Gumz ML, Bryant AJ, McClung CA, Tseng GC, Esser KA, Huo Z. Likelihood-based tests for detecting circadian rhythmicity and differential circadian patterns in transcriptomic applications. *Briefings in bioinformatics* 2021;22.PMC857502110.1093/bib/bbab224
54. Dion C, Tanner JJ, Crowley SJ, Wiggins ME, Mareci T, Ding M, Price CC, Manini TM. Functional connectivity of key resting state networks and objectively measured physical activity in older adults with joint pain: A pilot study. *Experimental gerontology* 2021;153:11147010.1016/j.exger.2021.111470
55. Douglas CM, Hesketh SJ, Esser KA. Time of Day and Muscle Strength: A Circadian Output? *Physiology (Bethesda, Md)* 2021;36:44-5110.1152/physiol.00030.2020
56. Efron PA, Darden DB, Wang Z, Nacionales DC, Lopez MC, Hawkins RB, Cox MC, Rincon JC, Ungaro R, Dirain ML, Ghita GL, Chen T, Billiar TR, Delano MJ, Leeuwenburgh C, Bihorac A, Brakenridge SC, Moore FA, Mohr AM, Tompkins RG, Brumback BA, Baker HV, Upchurch GR, Moldawer LL. Transcriptomic responses from improved murine sepsis models can better mimic human surgical sepsis. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology* 2021;35:e21156.PMC785542310.1096/fj.202002150R
57. Erickson ML, Esser KA, Kraus WE, Buford TW, Redman LM. A Role for Exercise to Counter Skeletal Muscle Clock Disruption. *Exercise and sport sciences reviews* 2021;49:35-41.PMC777321510.1249/jes.0000000000000235
58. Evangelista ND, O'Shea A, Kraft JN, Hausman HK, Boutzoukas EM, Nissim NR, Albizu A, Hardcastle C, Van Etten EJ, Bharadwaj PK, Smith SG, Song H, Hishaw GA, DeKosky S, Wu S, Porges E, Alexander GE, Marsiske M, Cohen R, Woods AJ. Independent Contributions of Dorsolateral Prefrontal Structure and Function to Working Memory in Healthy Older Adults. *Cerebral cortex (New York, NY : 1991)* 2021;31:1732-43.PMC786909810.1093/cercor/bhaa322
59. Flores-Toro J, Chun SK, Shin JK, Campbell J, Lichtenberger M, Chapman W, Zendejas I, Behrns K, Leeuwenburgh C, Kim JS. Critical Roles of Calpastatin in Ischemia/Reperfusion Injury in Aged Livers. *Cells* 2021;10.PMC839446410.3390/cells10081863
60. Freytes IM, Sullivan M, Schmitzberger M, LeLaurin J, Orozco T, Eliazar-Macke N, Uphold C. Types of stroke-related deficits and their impact on family caregiver's depressive symptoms, burden, and quality of life. *Disability and health journal* 2021;14:10101910.1016/j.dhjo.2020.101019
61. Fullwood D, Cameron C, Means S, Anton S, Stickley ZL, Hale R, Wilkie DJ. Prevalence of violent advertisements in New York City subways. *Health promotion perspectives* 2021;11:219-29.PMC823367910.34172 hpp.2021.27
62. Fullwood D, Gomez RN, Huo Z, Cardoso JS, Bartley EJ, Booker SQ, Powell-Roach KL, Johnson AJ, Sibille KT, Addison AS, Goodin BR, Staud R, Redden DT, Fillingim RB, Terry EL. A Mediation Appraisal of Catastrophizing, Pain-Related Outcomes, and Race in Adults With Knee Osteoarthritis. *The journal of pain* 2021;22:1452-6610.1016/j.jpain.2021.04.018
63. Gabriel BM, Altıntaş A, Smith JAB, Sardon-Puig L, Zhang X, Basse AL, Laker RC, Gao H, Liu Z, Dollet L, Treebak JT, Zorzano A, Huo Z, Rydén M, Lanner JT, Esser KA, Barrès R, Pillon NJ, Krook A, Zierath JR. Disrupted circadian oscillations in type 2 diabetes are linked to altered rhythmic mitochondrial metabolism in skeletal muscle. *Science advances* 2021;7:eabi9654.PMC852842910.1126/sciadv.abi9654
64. Gaynor SM, Bortsov A, Bair E, Fillingim RB, Greenspan JD, Ohrbach R, Diatchenko L, Nackley A, Tchivileva IE, Whitehead W, Alonso AA, Buchheit TE, Boortz-Marx RL, Liedtke W, Park JJ, Maixner W, Smith SB. Phenotypic profile clustering pragmatically identifies diagnostically and mechanistically informative subgroups of chronic pain patients. *Pain* 2021;162:1528-38.PMC804994610.1097/j.pain.0000000000002153
65. Ghosh S, Bian J, Guo Y, Prospero M. Deep propensity network using a sparse autoencoder for estimation of treatment effects. *Journal of the American Medical Informatics Association : JAMIA* 2021;28:1197-20610.1093/jamia.oaa346
66. Gill TM, Bhasin S, Reuben DB, Latham NK, Araujo K, Ganz DA, Boulton C, Wu AW, Magaziner J, Alexander N, Wallace RB, Miller ME, Trivison TG, Greenspan SL, Gurwitz JH, Rich J, Volpi E, Waring SC, Manini TM, Min LC,

- Teresi J, Dykes PC, McMahon S, McGloin JM, Skokos EA, Charpentier P, Basaria S, Duncan PW, Storer TW, Gazarian P, Allore HG, Dziura J, Esserman D, Carnie MB, Hanson C, Ko F, Resnick NM, Wiggins J, Lu C, Meng C, Goehring L, Fagan M, Correa-de-Araujo R, Casteel C, Peduzzi P, Greene EJ. Effect of a Multifactorial Fall Injury Prevention Intervention on Patient Well-Being: The STRIDE Study. *Journal of the American Geriatrics Society* 2021;69:173-910.1111/jgs.16854
67. Guirgis FW, Black LP, Henson M, Labilloy G, Smotherman C, Hopson C, Tfirm I, DeVos EL, Leeuwenburgh C, Moldawer L, Datta S, Brusko TM, Hester A, Bertrand A, Grijalva V, Arango-Esterhay A, Moore FA, Reddy ST. A hypolipoprotein sepsis phenotype indicates reduced lipoprotein antioxidant capacity, increased endothelial dysfunction and organ failure, and worse clinical outcomes. *Critical care (London, England)* 2021;25:341.PMC844756110.1186/s13054-021-03757-5
68. Guirgis FW, Leeuwenburgh C, Moldawer L, Ghita G, Black LP, Henson M, DeVos E, Holden D, Efron P, Reddy ST, Moore FA. Lipid and lipoprotein predictors of functional outcomes and long-term mortality after surgical sepsis. *Annals of intensive care* 2021;11:82.PMC813637610.1186/s13613-021-00865-x
69. Guo Y, Szurek SM, Bian J, Braithwaite D, Licht JD, Shenkman EA. The role of sex and rurality in cancer fatalistic beliefs and cancer screening utilization in Florida. *Cancer medicine* 202110.1002/cam4.4122
70. Guo Y, Zhang Y, Lyu T, Prosperi M, Wang F, Xu H, Bian J. The application of artificial intelligence and data integration in COVID-19 studies: a scoping review. *Journal of the American Medical Informatics Association : JAMIA* 202110.1093/jamia/ocab098
71. Guo Z, Qiu C, Mecca C, Zhang Y, Bian J, Wang Y, Wu X, Wang T, Su W, Li X, Zhang W, Chen B, Xiang H. Elevated lymphotoxin- α (TNF β) is associated with intervertebral disc degeneration. *BMC musculoskeletal disorders* 2021;22:77.PMC780751410.1186/s12891-020-03934-7
72. Guralnik J, Ershler W, Artz A, Lazo-Langner A, Walston J, Pahor M, Ferrucci L, Evans WJ. Unexplained anemia of aging: Etiology, health consequences, and diagnostic criteria. *Journal of the American Geriatrics Society* 202110.1111/jgs.17565
73. Harper SA, Bassler JR, Peramsetty S, Yang Y, Roberts LM, Drummer D, Mankowski RT, Leeuwenburgh C, Ricart K, Patel RP, Bamman MM, Anton SD, Jaeger BC, Buford TW. Resveratrol and exercise combined to treat functional limitations in late life: A pilot randomized controlled trial. *Experimental gerontology* 2021;143:111111.PMC785590410.1016/j.exger.2020.111111
74. He X, Zhang R, Alpert J, Zhou S, Adam TJ, Raisa A, Peng Y, Zhang H, Guo Y, Bian J. When text simplification is not enough: could a graph-based visualization facilitate consumers' comprehension of dietary supplement information? *JAMIA open* 2021;4:ooab026.PMC802934610.1093/jamiaopen/ooab026
75. He Z, Erdengasileng A, Luo X, Xing A, Charness N, Bian J. How the clinical research community responded to the COVID-19 pandemic: an analysis of the COVID-19 clinical studies in ClinicalTrials.gov. *JAMIA open* 2021;4:ooab032.PMC808321510.1093/jamiaopen/ooab032
76. Hernandez AR, Hoffman JM, Hernandez CM, Cortes CJ, Jumbo-Lucioni P, Baxter MG, Esser KA, Liu AC, McMahon LL, Bizon JL, Burke SN, Buford TW, Carter CS. Reuniting the Body "Neck Up and Neck Down" to Understand Cognitive Aging: The Nexus of Geroscience and Neuroscience. *The journals of gerontology Series A, Biological sciences and medical sciences* 202110.1093/gerona/ghab215
77. Hu H, Zheng Y, Wen X, Smith SS, Nizomov J, Fische J, Hogan WR, Shenkman EA, Bian J. An external exposome-wide association study of COVID-19 mortality in the United States. *The Science of the total environment* 2021;768:144832.PMC778831910.1016/j.scitotenv.2020.144832
78. Huo J, Hong YR, Turner K, Chen C, Guo Y, Wilkie DJ, Bian J. Geographic variation in palliative care delivery among patients diagnosed with metastatic lung cancer in the USA: Medicare population-based study. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer* 2021;29:813-2110.1007/s00520-020-05549-z
79. Hyun M, Rathor L, Kim HJ, McElroy T, Hwang KH, Wohlgemuth S, Curry S, Xiao R, Leeuwenburgh C, Heo JD, Han SM. Comparative toxicities of BPA, BPS, BPF, and TMBPF in the nematode *Caenorhabditis elegans* and mammalian fibroblast cells. *Toxicology* 2021;461:15292410.1016/j.tox.2021.152924
80. Japp AS, Meng W, Rosenfeld AM, Perry DJ, Thirawatananond P, Bacher RL, Liu C, Gardner JS, Atkinson MA, Kaestner KH, Brusko TM, Naji A, Luning Prak ET, Betts MR. TCR(+)/BCR(+) dual-expressing cells and their associated public BCR clonotype are not enriched in type 1 diabetes. *Cell* 2021;184:827-39.e14.PMC801614710.1016/j.cell.2020.11.035
81. Jenny Wei YJ, Chen C, Fillingim RB, DeKosky ST, Schmidt S, Pahor M, Solberg L, Winterstein AG. Uncontrolled Pain and Risk for Depression and Behavioral Symptoms in Residents With Dementia. *Journal of the American Medical Directors Association* 2021;22:2079-86.e5.PMC847870910.1016/j.jamda.2021.05.010
82. Jeon YK, Shin MJ, Saini SK, Custodero C, Aggarwal M, Anton SD, Leeuwenburgh C, Mankowski RT. Vascular dysfunction as a potential culprit of sarcopenia. *Experimental gerontology*

- 2021;145:111220.PMC816845010.1016.j.exger.2020.111220
83. Jiang G, Zhang P, Ratnayake R, Yang G, Zhang Y, Zuo R, Powell M, Huguet-Tapia JC, Abboud KA, Dang LH, Teplitski M, Paul V, Xiao R, Ahammad KH, Zaman U, Hu Z, Cao S, Luesch H, Ding Y. Fungal Epithiodiketopiperazines Carrying α,β -Polysulfide Bridges from *Penicillium steckii* YE, and Their Chemical Interconversion. *Chembiochem : a European journal of chemical biology* 2021;22:416-22.PMC789533110.1002/cbic.202000403
 84. Johnson AJ, Cruz-Almeida Y. Advancing our understanding of neuropathic pain in diabetes mellitus using conditioned pain modulation: further considerations for age and testing site. *Pain* 202110.1097/j.pain.0000000000002441
 85. Johnson AJ, Laffitte Nodarse C, Peraza JA, Valdes-Hernandez PA, Montesino-Goicolea S, Huo Z, Fillingim RB, Cruz-Almeida Y. Psychological profiles in adults with knee OA-related pain: a replication study. *Therapeutic advances in musculoskeletal disease* 2021;13:1759720x211059614.PMC866432110.1177/1759720x211059614
 86. Johnson AJ, Sibille KT, Cardoso J, Terry EL, Powell-Roach KL, Goodin B, Staud R, Redden D, Fillingim RB, Booker SQ. Patterns and Correlates of Self-Management Strategies for Osteoarthritis-Related Pain Among Older Non-Hispanic Black and Non-Hispanic White Adults. *Arthritis care & research* 2021;73:1648-5810.1002/acr.24396
 87. Johnson AJ, Vasilopoulos T, Booker SQ, Cardoso J, Terry EL, Powell-Roach K, Staud R, Kusko DA, Addison AS, Redden DT, Goodin BR, Fillingim RB, Sibille KT. Knee pain trajectories over 18 months in non-Hispanic Black and non-Hispanic White adults with or at risk for knee osteoarthritis. *BMC musculoskeletal disorders* 2021;22:415.PMC810122410.1186/s12891-021-04284-8
 88. Johnson AJ, Wilson AT, Laffitte Nodarse C, Montesino-Goicolea S, Valdes-Hernandez PA, Somerville J, Peraza JA, Fillingim RB, Bialosky J, Cruz-Almeida Y. Age Differences in Multimodal Quantitative Sensory Testing and Associations With Brain Volume. *Innovation in aging* 2021;5:igab033.PMC848943310.1093/geroni/igab033
 89. Jones LC, Dion C, Efron PA, Price CC. Sepsis and Cognitive Assessment. *Journal of clinical medicine* 2021;10.PMC847011010.3390/jcm10184269
 90. Jun I, Rich SN, Chen Z, Bian J, Prosperi M. Challenges in replicating secondary analysis of electronic health records data with multiple computable phenotypes: A case study on methicillin-resistant *Staphylococcus aureus* bacteremia infections. *International journal of medical informatics* 2021;153:10453110.1016/j.ijmedinf.2021.104531
 91. Karanth SD, Washington C, Cheng TD, Zhou D, Leeuwenburgh C, Braithwaite D, Zhang D. Inflammation in Relation to Sarcopenia and Sarcopenic Obesity among Older Adults Living with Chronic Comorbidities: Results from the National Health and Nutrition Examination Survey 1999-2006. *Nutrients* 2021;13.PMC862117410.3390/nu13113957
 92. Kelly LS, Darden DB, Fenner BP, Efron PA, Mohr AM. The Hematopoietic Stem/Progenitor Cell Response to Hemorrhage, Injury, and Sepsis: A Review of Pathophysiology. *Shock (Augusta, Ga)* 2021;56:30-41.PMC814106210.1097/shk.0000000000001699
 93. Kleykamp BA, Ferguson MC, McNicol E, Bixho I, Arnold LM, Edwards RR, Fillingim R, Grol-Prokopczyk H, Ohrbach R, Turk DC, Dworkin RH. The prevalence of comorbid chronic pain conditions among patients with temporomandibular disorders: A systematic review. *Journal of the American Dental Association (1939)* 202110.1016.j.adaj.2021.08.008
 94. Knight P, Gauthier ML, Pardo CE, Darst RP, Kapadia K, Browder H, Morton E, Riva A, Kladd MP, Bacher R. Methylscaper: an R/shiny app for joint visualization of DNA methylation and nucleosome occupancy in single-molecule and single-cell data. *Bioinformatics (Oxford, England)* 2021;37:4857-9.PMC866574110.1093/bioinformatics/btab438
 95. Kumar S, Mankowski RT, Anton SD, Babu Balagopal P. Novel insights on the role of spexin as a biomarker of obesity and related cardiometabolic disease. *International journal of obesity (2005)* 2021;45:2169-7810.1038/s41366-021-00906-2
 96. Laitano O, Pindado J, Valera I, Spradlin RA, Murray KO, Villani KR, Alzahrani JM, Ryan TE, Efron PA, Ferreira LF, Barton ER, Clanton TL. The impact of hindlimb disuse on sepsis-induced myopathy in mice. *Physiological reports* 2021;9:e14979.PMC831155510.14814/phy2.14979
 97. LeLaurin JH, Freytes IM, Findley KE, Schmitzberger MK, Eliazar-Macke ND, Orozco T, Uphold CR. Feasibility and acceptability of a telephone and web-based stroke caregiver intervention: a pilot randomized controlled trial of the RESCUE intervention. *Clinical rehabilitation* 2021;35:253-6510.1177/0269215520957004
 98. Loftus TJ, Ungaro R, Dirain M, Efron PA, Mazer MB, Remy KE, Hotchkiss RS, Zhong L, Bacher R, Starostik P, Moldawer LL, Brakenridge SC. Overlapping but Disparate Inflammatory and Immunosuppressive Responses to SARS-CoV-2 and Bacterial Sepsis: An Immunological Time Course Analysis. *Frontiers in*

- immunology 2021;12:792448.PMC869601010.3389/fimmu.2021.792448
99. Lopez J, Stacciarini JM, Scarton L, Uphold CR. Interventions for Informal Caregivers of Stroke Survivors: Is There Racial and Ethnic Representation in Stroke Caregiver Studies? *Rehabilitation nursing : the official journal of the Association of Rehabilitation Nurses* 2021;10.1097/rnj.0000000000000315
 100. Lossio-Ventura JA, Gonzales S, Morzan J, Alatriza-Salas H, Hernandez-Boussard T, Bian J. Evaluation of clustering and topic modeling methods over health-related tweets and emails. *Artificial intelligence in medicine* 2021;117:10209610.1016/j.artmed.2021.102096
 101. Mankowski RT, Anton SD, Ghita GL, Brumback B, Darden DB, Bihorac A, Moldawer LL, Efron PA, Brakenridge SC, Moore FA. Older adults demonstrate biomarker evidence of the persistent inflammation, immunosuppression and catabolism syndrome (PICS) after sepsis. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;10.1093/gerona/ghab080
 102. Mankowski RT, Laitano O, Clanton TL, Brakenridge SC. Pathophysiology and Treatment Strategies of Acute Myopathy and Muscle Wasting after Sepsis. *Journal of clinical medicine* 2021;10.PMC812366910.3390/jcm10091874
 103. Mankowski RT, Thomas RM, Darden DB, Gharaibeh RZ, Hawkins RB, Cox MC, Apple C, Nacionales DC, Ungaro RF, Dirain ML, Moore FA, Leeuwenburgh C, Brakenridge SC, Clanton TL, Laitano O, Moldawer LL, Mohr AM, Efron PA. Septic Stability? Gut Microbiota in Young Adult Mice Maintains Overall Stability After Sepsis Compared to Old Adult Mice. *Shock (Augusta, Ga)* 2021;55:519-25.PMC789586610.1097/shk.0000000000001648
 104. Mardini MT, Bai C, Wanigatunga AA, Saldana S, Casanova R, Manini TM. Age Differences in Estimating Physical Activity by Wrist Accelerometry Using Machine Learning. *Sensors (Basel, Switzerland)* 2021;21.PMC815076410.3390/s21103352
 105. Mardini MT, Nerella S, Kheirhahan M, Ranka S, Fillingim RB, Hu Y, Corbett DB, Cenko E, Weber E, Rashidi P, Manini TM. The Temporal Relationship Between Ecological Pain and Life-Space Mobility in Older Adults With Knee Osteoarthritis: A Smartwatch-Based Demonstration Study. *JMIR mHealth and uHealth* 2021;9:e19609.PMC784029110.2196/19609
 106. Marra DE, Busl KM, Robinson CP, Bruzzone MJ, Miller AH, Chen Z, Guo Y, Lyu T, Bian J, Smith GE. Examination of Early CNS Symptoms and Severe Coronavirus Disease 2019: A Multicenter Observational Case Series. *Critical care explorations* 2021;3:e0456.PMC820254810.1097/cce.0000000000000456
 107. McCrae CS, Curtis AF, Nair N, Berry J, Davenport M, McGovney K, Berry RB, McCoy K, Marsiske M. Impact of a brief behavioral treatment for insomnia (BBTi) on metacognition in older adults. *Sleep medicine* 2021;80:286-9310.1016/j.sleep.2021.01.039
 108. McDermott MM, Dayanidhi S, Kosmac K, Saini S, Slys J, Leeuwenburgh C, Hartnell L, Sufit R, Ferrucci L. Walking Exercise Therapy Effects on Lower Extremity Skeletal Muscle in Peripheral Artery Disease. *Circulation research* 2021;128:1851-6710.1161/circresaha.121.318242
 109. McDermott MM, Spring B, Tian L, Treat-Jacobson D, Ferrucci L, Lloyd-Jones D, Zhao L, Polonsky T, Kibbe MR, Bazzano L, Guralnik JM, Forman DE, Rego A, Zhang D, Domanchuk K, Leeuwenburgh C, Sufit R, Smith B, Manini T, Criqui MH, Rejeski WJ. Effect of Low-Intensity vs High-Intensity Home-Based Walking Exercise on Walk Distance in Patients With Peripheral Artery Disease: The LITE Randomized Clinical Trial. *Jama* 2021;325:1266-76.PMC8025122 from Regeneron and receiving other research support from Art Assist, HelixMith, Hershey Company, Mars Company, ReserveAge, and Chromadex for study interventions or measures not related to the current study. Dr Spring reported receiving personal fees from an Actigraph scientific advisory board. Dr Sufit reported receiving grants from the American Heart Association. No other disclosures were reported.10.1001/jama.2021.2536

110. McDermott MM, Tian L, Criqui MH, Ferrucci L, Conte MS, Zhao L, Li L, Sufit R, Polonsky TS, Kibbe MR, Greenland P, Leeuwenburgh C, Guralnik JM. Meaningful change in 6-minute walk in people with peripheral artery disease. *Journal of vascular surgery* 2021;73:267-76.e110.1016/j.jvs.2020.03.052
111. Mi X, Zou B, Rashidi P, Baharloo R, Fillingim RB, Wallace MR, Crispin PL, Parvataneni HK, Prieto HA, Gray CF, Machuca TN, Hughes SJ, Murad GJA, Thomas E, Iqbal A, Tighe PJ. Effects of Patient and Surgery Characteristics on Persistent Postoperative Pain: A Mediation Analysis. *The Clinical journal of pain* 2021;37:803-11.PMC851127310.1097/ajp.0000000000000979
112. Moldawer LL, Darden DB, Efron PA. Reply to "Do Not Blame the Rodent for the Failure of Developing Sepsis Therapies". *Shock (Augusta, Ga)* 2021;56:152-310.1097/shk.0000000000001688
113. Morris EJ, Brown JD, Manini TM, Vouri SM. Differences in Health-Related Quality of Life Among Adults with a Potential Dihydropyridine Calcium Channel Blocker-Loop Diuretic Prescribing Cascade. *Drugs & aging* 2021;38:625-3210.1007/s40266-021-00868-0
114. Nair VD, Vasoya M, Nair V, Smith GR, Pincas H, Ge Y, Douglas CM, Esser KA, Sealton SC. Differential analysis of chromatin accessibility and gene expression profiles identifies cis-regulatory elements in rat adipose and muscle. *Genomics* 2021;113:3827-4110.1016/j.ygeno.2021.09.013
115. Navratilova E, Fillingim RB, Porreca F. Sexual dimorphism in functional pain syndromes. *Science translational medicine* 2021;13:eabj718010.1126/scitranslmed.abj7180
116. Patel K, Polonsky TS, Kibbe MR, Guralnik JM, Tian L, Ferrucci L, Criqui MH, Sufit R, Leeuwenburgh C, Zhang D, Zhao L, McDermott MM. Clinical characteristics and response to supervised exercise therapy of people with lower extremity peripheral artery disease. *Journal of vascular surgery* 2021;73:608-2510.1016/j.jvs.2020.04.498
117. Peskoe SB, Arterburn D, Coleman KJ, Herrinton LJ, Daniels MJ, Haneuse S. Adjusting for selection bias due to missing data in electronic health records-based research. *Statistical methods in medical research* 2021;30:2221-3810.1177/09622802211027601
118. Pratscher S, Mickle AM, Marks JG, Rocha H, Bartsch F, Schmidt J, Tejera L, Garcia S, Custodero C, Jean F, Garvan C, Johnson AJ, Pop R, Greene A, Woods AJ, Staud R, Fillingim RB, Keil A, Sibille KT. Optimizing Chronic Pain Treatment with Enhanced Neuroplastic Responsiveness: A Pilot Randomized Controlled Trial. *Nutrients* 2021;13.PMC814792710.3390/nu13051556
119. Prieto-Alhambra D, Kostka K, Duarte-Salles T, Prats-Urbe A, Sena A, Pistillo A, Khalid S, Lai L, Golozar A, Alshammari TM, Dawoud D, Nyberg F, Wilcox A, Andryc A, Williams A, Ostropolets A, Areia C, Jung CY, Harle C, Reich C, Blacketer C, Morales D, Dorr DA, Burn E, Roel E, Tan EH, Minty E, DeFalco F, de Maeztu G, Lipori G, Alghoul H, Zhu H, Thomas J, Bian J, Park J, Roldán JM, Posada J, Banda JM, Horcajada JP, Kohler J, Shah K, Natarajan K, Lynch K, Liu L, Schilling L, Recalde M, Spotnitz M, Gong M, Matheny M, Valveny N, Weiskopf N, Shah N, Alser O, Casajust P, Park RW, Schuff R, Seager S, DuVall S, You SC, Song S, Fernández-Bertolín S, Fortin S, Magoc T, Falconer T, Subbian V, Huser V, Ahmed WU, Carter W, Guan Y, Galvan Y, He X, Rijnbeek P, Hripcsak G, Ryan P, Suchard M. Unraveling COVID-19: a large-scale characterization of 4.5 million COVID-19 cases using CHARYBDIS. *Research square* 2021.PMC7941629 form at www.icmje.org/coi_disclosure.pdf and declare: Ms. Kostka is an employee of IQVIA. Mr. Sena is an employee and holds stock at Janssen Research & Development, a Johnson and Johnson family of companies. Dr. Golozar reports personal fees from Regeneron Pharmaceuticals, outside the submitted work. She is a full-time employee at Regeneron Pharmaceuticals. This work was not conducted at Regeneron Pharmaceuticals. Dr. Nyberg reports other funding from AstraZeneca, outside the submitted work. Dr. Wilcox reports grants from Bill and Melinda Gates Foundation, grants from National Institute of Health, during the conduct of the study Mr. Andryc is an employee of Janssen Research & Development, a subsidiary of Johnson & Johnson. Dr. Reich is an employee of IQVIA. Dr. Blacketer reports she is an employee and holds stock at Janssen Research & Development, a Johnson and Johnson family of companies. Dr. Morales is supported by a Wellcome Trust Clinical Research Development Fellowship (Grant 214588/Z/18/Z) and reports grants from Chief Scientist Office (CSO), grants from Health Data Research UK (HDR-UK), grants from National Institute of Health Research (NIHR), outside the submitted work. Mr. DeFalco reports he is an employee and holds stock at Janssen Research & Development, a Johnson and Johnson family of companies. Jason Thomas reports grants from Bill and Melinda Gates Foundation, grants from National Institute of Health, during the conduct of the study. Dr. Posada reports grants from National Library of Medicine, during the conduct of the study. Dr. Natarajan reports grants from US NIH, during the conduct of the study. Dr. Matheny reports grants from US NIH, grants from US VA HSR&D, during the conduct of the study. Dr. Weiskopf reports personal fees from Merck, outside the submitted work. Dr. Shah reports grants from National Library of Medicine, during the conduct of the study. Dr. Park reports grants from Ministry of Trade, Industry & Energy, Republic of Korea, grants from Ministry of Health & Welfare, Republic of Korea, grants from Bill & Melinda Gates

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120. Prosperi M, Guo Y, Bian J. Bagged random causal networks for interventional queries on observational biomedical datasets. *Journal of biomedical informatics* 2021;115:103689.PMC808590610.1016/j.jbi.2021.103689
 121. Przkora R, Sibille K, Victor S, Meroney M, Leeuwenburgh C, Gardner A, Vasilopoulos T, Parvataneni HK. Blood flow restriction exercise to attenuate postoperative loss of function after total knee replacement: a randomized pilot study. *European journal of translational myology* 2021;31.PMC8495367 publication and affirm that this report is consistent with those guidelines.10.4081/ejtm.2021.9932
 122. Przkora R, Sibille K, Victor S, Meroney M, Leeuwenburgh C, Gardner A, Vasilopoulos T, Parvataneni HK. Assessing the feasibility of using the short physical performance battery to measure function in the immediate postoperative period after total knee replacement. *European journal of translational myology* 2021;31.PMC8274223 ethical publication and affirm that this report is consistent with those guidelines.10.4081/ejtm.2021.9673
 123. Rincon JC, Hawkins RB, Hollen M, Nacionales DC, Ungaro R, Efron PA, Moldawer LL, Larson SD. Aluminum Adjuvant Improves Survival Via NLRP3 Inflammasome and Myeloid Non-Granulocytic Cells in a Murine Model of Neonatal Sepsis. *Shock (Augusta, Ga)* 2021;55:274-82.PMC802559710.1097/shk.0000000000001623
 124. Ronan EA, Xiao R, Shawn Xu XZ. TRP channels: Intestinal bloating TRiPs up pathogen avoidance. *Cell calcium* 2021;98:102446.PMC841910610.1016/j.ceca.2021.102446
 125. Ronan EA, Xiao R, Xu XZS. TRP channels: Intestinal bloating TRiPs up pathogen avoidance. *Cell calcium* 2021;98:102446.PMC841910610.1016/j.ceca.2021.102446
 126. Ross JJ, Wasserfall CH, Bacher R, Perry DJ, McGrail K, Posgai AL, Dong X, Muir A, Li X, Campbell-Thompson M, Brusko TM, Schatz DA, Haller MJ, Atkinson MA. Exocrine Pancreatic Enzymes Are a Serological Biomarker for Type 1 Diabetes Staging and Pancreas Size. *Diabetes* 2021;70:944-54.PMC798019310.2337/db20-0995
 127. Rotblatt LJ, Aiken-Morgan AT, Marsiske M, Horgas AL, Thomas KR. Do Associations Between Vascular Risk and Mild Cognitive Impairment Vary by Race? *Journal of aging and health* 2021:898264320984357.PMC831089710.1177/0898264320984357
 128. Rouzard Laborde C, Cenko E, Mardini MT, Nerella S, Kheirkhan M, Ranka S, Fillingim RB, Corbett DB, Weber E, Rashidi P, Manini T. Satisfaction, Usability, and Compliance With the Use of Smartwatches for Ecological Momentary Assessment of Knee Osteoarthritis Symptoms in Older Adults: Usability Study. *JMIR aging* 2021;4:e24553.PMC831978610.2196/24553

129. Rung JM, Horta M, Tammi EM, Perez E, Ojeda MC, Lin T, Harris G, Somerville J, Salmeron D, Beltz SE, Sandesara B, Feifel D, Ebner NC. Safety and tolerability of chronic intranasal oxytocin in older men: results from a randomized controlled trial. *Psychopharmacology* 2021;238:2405-18.PMC811599710.1007/s00213-021-05862-3
130. Sambuco N, Mickle AM, Garvan C, Cardoso J, Johnson AJ, Kusko DA, Addison A, Glover TL, Staud R, Redden D, Goodin B, Fillingim RB, Sibille KT. Vulnerable Dispositional Traits and Chronic Pain: Predisposing but not Predetermining. *The journal of pain* 202110.1016/j.jpain.2021.11.007
131. Saner NJ, Lee MJ, Kuang J, Pitchford NW, Roach GD, Garnham A, Genders AJ, Stokes T, Schroder EA, Huo Z, Esser KA, Phillips SM, Bishop DJ, Bartlett JD. Exercise mitigates sleep-loss-induced changes in glucose tolerance, mitochondrial function, sarcoplasmic protein synthesis, and diurnal rhythms. *Molecular metabolism* 2021;43:101110.PMC770442510.1016/j.molmet.2020.101110
132. Schroder EA, Burgess DE, Johnson SR, Ono M, Seward T, Elayi CS, Esser KA, Delisle BP. Timing of food intake in mice unmasks a role for the cardiomyocyte circadian clock mechanism in limiting QT-interval prolongation. *Chronobiology international* 2021;1-1010.1080/07420528.2021.2011307
133. Schroder EA, Wayland JL, Samuels KM, Shah SF, Burgess DE, Seward T, Elayi CS, Esser KA, Delisle BP. Cardiomyocyte Deletion of Bmal1 Exacerbates QT- and RR-Interval Prolongation in Scn5a (+/ΔKQP) Mice. *Frontiers in physiology* 2021;12:681011.PMC826521610.3389/fphys.2021.681011
134. Sheng Y, Yang G, Casey K, Curry S, Oliver M, Han SM, Leeuwenburgh C, Xiao R. A novel role of the mitochondrial iron-sulfur cluster assembly protein ISCU-1/ISCU in longevity and stress response. *GeroScience* 2021;43:691-707.PMC811066010.1007/s11357-021-00327-z
135. Sheng Y, Yang G, Markovich Z, Han SM, Xiao R. Distinct temporal actions of different types of unfolded protein responses during aging. *Journal of cellular physiology* 2021;236:5069-79.PMC802667110.1002/jcp.30215
136. Simon CB, Lentz TA, Ellis L, Bishop MD, Fillingim RB, Riley JL, 3rd, George SZ. Static and Dynamic Pain Sensitivity in Adults With Persistent Low Back Pain: Comparison to Healthy Controls and Associations With Movement-evoked Pain Versus Traditional Clinical Pain Measures. *The Clinical journal of pain* 2021;37:494-503.PMC819401310.1097/ajp.0000000000000945
137. Sinha P, Rani A, Kumar A, Riva A, Brant JO, Foster TC. Examination of CA1 Hippocampal DNA Methylation as a Mechanism for Closing of Estrogen's Critical Window. *Frontiers in aging neuroscience* 2021;13:717032.PMC837155310.3389/fnagi.2021.717032
138. Slysz JT, Rejeski WJ, Treat-Jacobson D, Bazzano LA, Forman DE, Manini TM, Criqui MH, Tian L, Zhao L, Zhang D, Guralnik JM, Ferrucci L, Kibbe MR, Polonsky TS, Spring B, Sufit R, Leeuwenburgh C, McDermott MM. Sustained physical activity in peripheral artery disease: Associations with disease severity, functional performance, health-related quality of life, and subsequent serious adverse events in the LITE randomized clinical trial. *Vascular medicine (London, England)* 2021;26:497-50610.1177/1358863x21989430
139. Someya S, Kim MJ. Cochlear detoxification: Role of alpha class glutathione transferases in protection against oxidative lipid damage, ototoxicity, and cochlear aging. *Hearing research* 2021;402:108002.PMC770462110.1016/j.heares.2020.108002
140. Speiser JL, Callahan KE, Houston DK, Fanning J, Gill TM, Guralnik JM, Newman AB, Pahor M, Rejeski WJ, Miller ME. Machine Learning in Aging: An Example of Developing Prediction Models for Serious Fall Injury in Older Adults. *The journals of gerontology Series A, Biological sciences and medical sciences* 2021;76:647-54.PMC801170410.1093/gerona/glaa138
141. Stephens-Shields AJ, Farrar JT, Ellenberg SS, Storer TW, Gill TM, Basaria S, Pahor M, Cauley JA, Ensrud KE, Preston P, Cella D, Snyder PJ, Bhasin S. Clinically Important Differences for Mobility Measures Derived from the Testosterone Trials. *Journal of the American Geriatrics Society* 2021;69:517-2310.1111/jgs.16942
142. Tanner JJ, Johnson AJ, Terry EL, Cardoso J, Garvan C, Staud R, Deutsch G, Deshpande H, Lai S, Addison A, Redden D, Goodin BR, Price CC, Fillingim RB, Sibille KT. Resilience, pain, and the brain: Relationships differ by sociodemographics. *Journal of neuroscience research* 2021;99:1207-35.PMC863406210.1002/jnr.24790
143. Taylor B, Yam A, Belchior P, Marsiske M. Videogame and Computer Intervention Effects on Older Adults' Mental Rotation Performance. *Games for health journal* 2021;10:198-203.PMC822054410.1089/g4h.2020.0128
144. Tchivileva IE, Ohrbach R, Fillingim RB, Lim PF, Giosia MD, Ribeiro-Dasilva M, Campbell JH, Hadgraft H, Willis J, Arbes SJ, Jr., Slade GD. Effect of comorbid migraine on propranolol efficacy for painful TMD in a randomized controlled trial. *Cephalalgia : an international journal of headache* 2021;41:839-50.PMC816640410.1177/0333102421989268
145. Terry EL, Tanner JJ, Cardoso JS, Sibille KT, Lai S, Deshpande H, Deutsch G, Goodin BR, Bradley LA, Price CC, Fillingim RB. Associations of pain catastrophizing with pain-related brain structure in individuals with or at risk for

- knee osteoarthritis: Sociodemographic considerations. *Brain imaging and behavior* 2021;15:1769-77.PMC806259410.1007/s11682-020-00372-w
146. Thomas CD, Parvataneni HK, Gray CF, Deen JT, Prieto HA, Pulido LF, Elsey AR, Elwood EN, Starostik P, Gong Y, Fillingim RB, Johnson JA, Cavallari LH. A hybrid implementation-effectiveness randomized trial of CYP2D6-guided postoperative pain management. *Genetics in medicine : official journal of the American College of Medical Genetics* 2021;23:621-8.PMC852521710.1038/s41436-020-01050-4
 147. Tice AL, Laudato JA, Rossetti ML, Wolff CA, Esser KA, Lee C, Lang CH, Vied C, Gordon BS, Steiner JL. Binge alcohol disrupts skeletal muscle core molecular clock independent of glucocorticoids. *American journal of physiology Endocrinology and metabolism* 2021;321:E606-e20.PMC879179010.1152/ajpendo.00187.2021
 148. Tucker CM, Roncoroni J, Klein KG, Derias TO, Ateyah W, Williams J, Nmezi NA, Shah NR, Bilello LA, Anton S. Views of Black women patients with obesity on desired and undesired weight-focused clinical encounters. *Clinical obesity* 2021;11:e1246810.1111/cob.12468
 149. Valdes-Hernandez PA, Montesino-Goicolea S, Hoyos L, Porges EC, Huo Z, Ebner NC, Woods AJ, Cohen R, Riley JL, 3rd, Fillingim RB, Cruz-Almeida Y. Resting-state functional connectivity patterns are associated with worst pain duration in community-dwelling older adults. *Pain reports* 2021;6:e978.PMC866000210.1097/pr9.0000000000000978
 150. Vasilopoulos T, Wardhan R, Rashidi P, Fillingim RB, Wallace MR, Crispin PL, Parvataneni HK, Prieto HA, Machuca TN, Hughes SJ, Murad GJA, Tighe PJ. Patient and Procedural Determinants of Postoperative Pain Trajectories. *Anesthesiology* 202110.1097/aln.0000000000003681
 151. Wei YJ, Schmidt S, Chen C, Fillingim RB, Reid MC, DeKosky S, Solberg L, Pahor M, Brumback B, Winterstein AG. Quality of opioid prescribing in older adults with or without Alzheimer disease and related dementia. *Alzheimer's research & therapy* 2021;13:78.PMC806102610.1186/s13195-021-00818-3
 152. Wei YJ, Solberg L, Chen C, Fillingim RB, Pahor M, DeKosky S, Winterstein AG. Agreement of Minimum Data Set 3.0 depression and behavioral symptoms with clinical diagnosis in a nursing home. *Aging & mental health* 2021;25:1897-902.PMC768605010.1080/13607863.2020.1758921
 153. Welch N, Singh SS, Kumar A, Dhruva SR, Mishra S, Sekar J, Bellar A, Attaway AH, Chelluboyina A, Willard BB, Li L, Huo Z, Karnik SS, Esser K, Longworth MS, Shah YM, Davuluri G, Pal R, Dasarathy S. Integrated multiomics analysis identifies molecular landscape perturbations during hyperammonemia in skeletal muscle and myotubes. *The Journal of biological chemistry* 2021;297:101023.PMC842423210.1016/j.jbc.2021.101023
 154. Williams MD, Bacher R, Perry DJ, Grace CR, McGrail KM, Posgai AL, Muir A, Chamala S, Haller MJ, Schatz DA, Brusko TM, Atkinson MA, Wasserfall CH. Genetic Composition and Autoantibody Titers Model the Probability of Detecting C-Peptide Following Type 1 Diabetes Diagnosis. *Diabetes* 2021;70:932-43.PMC798019410.2337/db20-0937
 155. Wilson AT, Riley JL, 3rd, Bishop MD, Beneciuk JM, Godza M, Cruz-Almeida Y, Bialosky JE. A psychophysical study comparing massage to conditioned pain modulation: A single blind randomized controlled trial in healthy participants. *Journal of bodywork and movement therapies* 2021;27:426-3510.1016/j.jbmt.2021.02.014
 156. Wippold GM, Tucker CM, Kroska EB, Hanvey GA. Perceived socioeconomic status and health-related quality of life (HQoL) among urban adults: Evaluating the protective value of resilience. *The American journal of orthopsychiatry* 2021;91:20-610.1037/ort0000514
 157. Wippold GM, Tucker CM, Roncoroni J, Henry MA. Impact of Stress and Loneliness on Health-Related Quality of Life Among Low Income Senior African Americans. *Journal of racial and ethnic health disparities* 2021;8:1089-9710.1007/s40615-020-00865-w
 158. Xiao R, Xu XZS. Temperature Sensation: From Molecular Thermosensors to Neural Circuits and Coding Principles. *Annual review of physiology* 2021;83:205-30.PMC793275910.1146/annurev-physiol-031220-095215
 159. Yang S, Bian J, George TJ, Daily K, Zhang D, Braithwaite D, Guo Y. The association between cognitive impairment and breast and colorectal cancer screening utilization. *BMC cancer* 2021;21:539.PMC811452810.1186 s12885-021-08321-6
 160. Yeater TD, Clark DJ, Hoyos L, Valdes-Hernandez PA, Peraza JA, Allen KD, Cruz-Almeida Y. Chronic Pain is Associated With Reduced Sympathetic Nervous System Reactivity During Simple and Complex Walking Tasks: Potential Cerebral Mechanisms. *Chronic stress (Thousand Oaks, Calif)* 2021;5:24705470211030273.PMC826702210.1177/24705470211030273
 161. Yegla B, Boles J, Kumar A, Foster TC. Partial microglial depletion is associated with impaired hippocampal synaptic and cognitive function in young and aged rats. *Glia* 2021;69:1494-514.PMC827854410.1002/glia.23975
 162. Zeidan RS, Han SM, Leeuwenburgh C, Xiao R. Iron homeostasis and organismal aging. *Ageing research reviews* 2021;72:101510.PMC862074410.1016/j.arr.2021.101510

163. Zhang H, Hu H, Diller M, Hogan WR, Prosperi M, Guo Y, Bian J. Semantic standards of external exposome data. *Environmental research* 2021;197:11118510.1016/j.envres.2021.111185
164. Zhang Y, Bian J, Huo J, Yang S, Guo Y, Shao H. Comparing the downstream costs and healthcare utilization associated with the use of low-dose computed tomography (LDCT) in lung cancer screening in patients with and without alzheimer's disease and related dementias (ADRD). *Current medical research and opinion* 2021:1-710.1080 03007995.2021.1953972
165. Zhu Y, Zhuang F, Wang J, Ke G, Chen J, Bian J, Xiong H, He Q. Deep Subdomain Adaptation Network for Image Classification. *IEEE transactions on neural networks and learning systems* 2021;32:1713-2210.1109 tnnls.2020.2988928