

Publications

2025 [1-18], 2024 [19-27], 2023 [28-35], 2022 [36, 37], 2021 [38]

1. Akinlalu, A., Rasuleva, K., Ogberefor, E., Gao, T., Han, H., Singh, P. K., Lieu, C. H., Coughlan, C., Pitts, T. M. & Sun, D. (2025). A Fluorescence Resonance Energy Transfer-Based Assay Targeting Tumor-Derived Extracellular Vesicles for Highly Specific Pancreatic Cancer Detection. *ACS Nano*. **19**, 42056-42065. <https://doi.org/10.1021/acsnano.5c10607>.
2. Arya, G., Chodiseti, P. K., Espinosa, J., Russo, B. C., Hang, H. C. & Duerkop, B. A. (2025). *Enterococcus faecium* sagA mutants have cell envelope defects influencing antibiotic resistance and bacteriophage susceptibility. *J Bacteriol*. **207**, e0030225. <https://doi.org/10.1128/jb.00302-25>.
3. Barnes, A., Gaikwad, H. K., Siegel, D., Angarita, D., Nebbia, M., Anchordoquy, T., Bourne, D., Stewart, M., Yildirim, A., Fierro Cota, M. M., Duffy, J. T., Haupt, B. E., Balyasnikova, I. V. & Simberg, D. (2025). Role of Serum Stability and Lipoprotein Interactions in Lipid Structure-Tumor Accumulation Relationship. *ACS Nano*. **19**, 36435-36450. <https://doi.org/10.1021/acsnano.5c10594>.
4. Baysah, C. Z., Dohoney, R. A., Palanikumar, L., Stillman, N. H., Penney, A. L., Sola, A. D., Paredes, D. A., Magzoub, M. & Kumar, S. (2025). A Brain-Penetrating Foldamer Rescues Abeta Aggregation-Associated Alzheimer's Disease Phenotypes in In Vivo Models. *ACS Chem Neurosci*. **16**, 1309-1322. <https://doi.org/10.1021/acscchemneuro.4c00753>.
5. Bourne, J. N. & Schoppa, N. E. (2025). Ultrastructural Contributions to Extrasynaptic Glutamatergic Signaling in Olfactory Bulb Glomeruli. *J Comp Neurol*. **533**, e70034. <https://doi.org/10.1002/cne.70034>.
6. Cendali, F. I., Grier, A. L., Lisk, C., Dzieciatkowska, M., Haiman, Z., Reisz, J. A., Harral, J., Stephenson, D., Hay, A. M., Wartchow, E. P., Buehler, P. W., Hansen, K. C., Nemkov, T., Zimring, J. C., Irwin, D. C. & D'Alessandro, A. (2025). Increased Exercise Tolerance in G6PD African Variant Mice Driven by Metabolic Adaptations and Erythrophagocytosis. *Antioxidants (Basel)*. **14**. <https://doi.org/10.3390/antiox14080927>.
7. Gil, K. B., Borg, J., Pereira, R. M., Inguva-Sheth, A., Araujo, G., Rahkola, J., Showers, W., Grier, A., D'Alessandro, A., Smith, C., McMahon, C., Pollyea, D. A., Gillen, A. E. & Amaya, M. L. (2025). The STAT3-VDAC1 axis modulates mitochondrial function and plays a critical role in the survival of acute myeloid leukemia cells. *Haematologica*. <https://doi.org/10.3324/haematol.2025.287352>.
8. Haque, P. S., Paris, S. L., Souza, R. F., Onyiah, J. C., Coughlan, C., Orlicky, D. J., Zempleni, J. & Theiss, A. L. (2025). Obese adipose tissue-derived extracellular vesicles enriched with glycolytic cargo promote colorectal cancer tumorigenesis. *Cancer Lett*. **635**, 218104. <https://doi.org/10.1016/j.canlet.2025.218104>.
9. Haque, P. S., Goodman, D., Kuusivuori-Robinson, T., Coughlan, C., Delgado-Deida, Y., Onyiah, J. C., Zempleni, J. & Theiss, A. L. (2025). Obese Adipose Tissue Extracellular Vesicles Activate Mitochondrial Fatty Acid beta-oxidation to Drive Colonic Stemness. *Cell Mol Gastroenterol Hepatol*. **19**, 101504. <https://doi.org/10.1016/j.jcmgh.2025.101504>.
10. Krzesinski, B. J., Holub, T. J., Gabani, Z. Y. & Margittai, M. (2025). Cellular Uptake of Tau Aggregates Triggers Disulfide Bond Formation in Four-Repeat Tau Monomers. *ACS Chem Neurosci*. **16**, 171-180. <https://doi.org/10.1021/acscchemneuro.4c00607>.

11. Ledreux, A., Carmona-Iragui, M., Videla, L., Benejam, B., Barroeta, I., Lleo, A., Alcolea, D. & Fortea, J. (2025). Cargo of small extracellular vesicles from neuronal origin shows progression of dementia in individuals with Down syndrome. *Alzheimers Dement.* **21**, e70380. <https://doi.org/10.1002/alz.70380>.
12. Mather, M. L., Evangelou, A. V., Bourne, J. N., Macklin, W. B. & Wood, T. L. (2025). Myelin Lipid Composition in the Central Nervous System Is Regionally Distinct and Requires Mechanistic Target of Rapamycin Signaling. *Glia.* **73**, 1841-1859. <https://doi.org/10.1002/glia.70042>.
13. Raab, J. E., Harju, T. B., Toperzer, J. D., Duncan-Lowey, J. K., Thomas, C. I., Darehshouri, A., Goldberg, M. B. & Russo, B. C. (2025). A translocation-competent pore is required for *Shigella flexneri* to escape from the double membrane vacuole during intercellular spread. *mBio.* **16**, e0167425. <https://doi.org/10.1128/mbio.01674-25>.
14. Stem, A. D., Michel, C. R., Harris, P. S., Rogers, K. L., Gibb, M., Roncal-Jimenez, C. A., Reisdorph, R., Johnson, R. J., Roede, J. R., Fritz, K. S. & Brown, J. M. (2025). Modulation of the thiol redox proteome by sugarcane ash-derived silica nanoparticles: insights into chronic kidney disease of unknown etiology. *Part Fibre Toxicol.* **22**, 3. <https://doi.org/10.1186/s12989-025-00619-8>.
15. Sun, Z., Torphy, R. J., Miller, E. N., Darehshouri, A., Vigil, I., Terai, T., Eck, E., Sun, Y., Guo, Y., Yee, E. J., Hu, J., Kedl, R. M., Lasda, E. L., Hesselberth, J. R., MacLean, P., Bruce, K. D., Randolph, G. J., Schulick, R. D. & Zhu, Y. (2025). GPR182 is a lipoprotein receptor for dietary fat absorption. *bioRxiv.* <https://doi.org/10.1101/2025.02.03.634329>.
16. Thompson-Brandhagen, R. E., Meyers, M. A., McCosh, R. B. & Hollinshead, F. K. (2025). Establishment and culture of mouse oviductal organoids and isolation and characterization of their secreted extracellular vesicles. *PLoS One.* **20**, e0337587. <https://doi.org/10.1371/journal.pone.0337587>.
17. Willett, B. A. S., Thompson, S. B., Chen, V., Dareshouri, A., Jackson, C. L., Brunetti, T., D'Alessandro, A., Klarquist, J., Nemkov, T. & Kedl, R. M. (2025). Mitochondrial protein OPA1 is required for the expansion of effector CD8 T cells. *Cell Rep.* **44**, 115610. <https://doi.org/10.1016/j.celrep.2025.115610>.
18. Wilson, C. E., Lasher, R. S., Salcedo, E., Yang, R., Dzowo, Y., Kinnamon, J. C. & Finger, T. E. (2025). Death in the Taste Bud: Engulfment of Dying Taste Receptor Cells by Glial-Like Type I Cells. *Glia.* **73**, 1660-1672. <https://doi.org/10.1002/glia.70025>.
19. Briganti, L., Annamalai, A. S., Bester, S. M., Wei, G., Andino-Moncada, J. R., Singh, S. P., Kleinpeter, A. B., Tripathi, M., Nguyen, B., Radhakrishnan, R., Singh, P. K., Greenwood, J., Schope, L. I., Haney, R., Huang, S. W., Freed, E. O., Engelman, A. N., Francis, A. C. & Kvaratskhelia, M. (2024). Structural and Mechanistic Bases for Resistance of the M66I Capsid Variant to Lenacapavir. *bioRxiv.* <https://doi.org/10.1101/2024.11.25.625199>.
20. Coughlan, C., Lindenberger, J., Jacot, J. G., Johnson, N. R., Anton, P., Bevers, S., Welty, R., Graner, M. W. & Potter, H. (2024). Specific Binding of Alzheimer's Aβ Peptides to Extracellular Vesicles. *Int J Mol Sci.* **25**. <https://doi.org/10.3390/ijms25073703>.
21. Gao, S., He, L., Lam, C. K., Taylor, M. R. G., Mestroni, L., Lombardi, R. & Chen, S. N. (2024). Filamin C Deficiency Impairs Sarcomere Stability and Activates Focal Adhesion Kinase through PDGFRA Signaling in Induced Pluripotent Stem Cell-Derived Cardiomyocytes. *Cells.* **13**. <https://doi.org/10.3390/cells13030278>.
22. Huang, S. W., Briganti, L., Annamalai, A. S., Greenwood, J., Shkriabai, N., Haney, R., Armstrong, M. L., Wempe, M. F., Singh, S. P., Francis, A. C., Engelman, A. N. &

- Kvaratskhelia, M. (2024). The primary mechanism for highly potent inhibition of HIV-1 maturation by lenacapavir. *bioRxiv*. <https://doi.org/10.1101/2024.12.06.627250>.
23. Joyce, L. R., Kim, S., Spencer, B. L., Christensen, P. M., Palmer, K. L., Guan, Z., Siegenthaler, J. A. & Doran, K. S. (2024). *Streptococcus agalactiae* glycolipids promote virulence by thwarting immune cell clearance. *Sci Adv.* **10**, eadn7848. <https://doi.org/10.1126/sciadv.adn7848>.
24. Nguyen, K. N., Graner, A. N., Fringuello, A. R., Zizzo, Z., Valenzuela, L., Anyanwu, K., Lillehei, K. O., Youssef, A. S., Guzman, S., Coughlan, C. & Graner, M. W. (2024). Extracellular Vesicles from a Novel Chordoma Cell Line, ARF-8, Promote Tumorigenic Microenvironmental Changes When Incubated with the Parental Cells and with Human Osteoblasts. *Int J Mol Sci.* **25**. <https://doi.org/10.3390/ijms252312731>.
25. Stillman, N. H., Joseph, J. A., Ahmed, J., Baysah, C. Z., Dohoney, R. A., Ball, T. D., Thomas, A. G., Fitch, T. C., Donnelly, C. M. & Kumar, S. (2024). Protein mimetic 2D FAST rescues alpha synuclein aggregation mediated early and post disease Parkinson's phenotypes. *Nat Commun.* **15**, 3658. <https://doi.org/10.1038/s41467-024-47980-4>.
26. Wang, M., Graner, A. N., Knowles, B., McRae, C., Fringuello, A., Paucek, P., Gavrilovic, M., Redwine, M., Hanson, C., Coughlan, C., Grimaldo-Garcia, S., Metzger, B., Bolus, V., Kopper, T. J., Smith, M., Zhou, W., Lenz, M., Abosch, A., Ojemann, S., Lillehei, K. O., Yu, X. & Graner, M. W. (2024). Differential Effects of Extracellular Vesicles from Two Different Glioblastomas on Normal Human Brain Cells. *Neurol Int.* **16**, 1355-1384. <https://doi.org/10.3390/neurolint16060103>.
27. Wang, M., Graner, A. N., Knowles, B., McRae, C., Fringuello, A., Paucek, P., Gavrilovic, M., Redwine, M., Hanson, C., Coughlan, C., Metzger, B., Bolus, V., Kopper, T., Smith, M., Zhou, W., Lenz, M., Abosch, A., Ojemann, S., Lillehei, K. O., Yu, X. & Graner, M. W. (2024). A tale of two tumors: differential, but detrimental, effects of glioblastoma extracellular vesicles (EVs) on normal human brain cells. *bioRxiv*. <https://doi.org/10.1101/2024.04.08.588622>.
28. Burns, N., Nijmeh, H., Lapel, M., Riddle, S., Yegutkin, G. G., Stenmark, K. R. & Gerasimovskaya, E. (2023). Isolation of vasa vasorum endothelial cells from pulmonary artery adventitia: Implementation to vascular biology research. *Microvasc Res.* **147**, 104479. <https://doi.org/10.1016/j.mvr.2023.104479>.
29. Contreras-Zárate, M. J., Alvarez-Eraso, K. L. F., Jaramillo-Gómez, J. A., Littrell, Z., Tsuji, N., Ormond, D. R., Karam, S. D., Peter, K. & Cittel, D. M. (2023). Short-term topiramate treatment prevents radiation-induced cytotoxic edema in preclinical models of breast-cancer brain metastasis. *Neuro Oncol.* <https://doi.org/10.1093/neuonc/noad070>.
30. Derk, J., Como, C. N., Jones, H. E., Joyce, L. R., Kim, S., Spencer, B. L., Bonney, S., O'Rourke, R., Pawlikowski, B., Doran, K. S. & Siegenthaler, J. A. (2023). Formation and function of the meningeal arachnoid barrier around the developing mouse brain. *Dev Cell.* **58**, 635-644.e634. <https://doi.org/10.1016/j.devcel.2023.03.005>.
31. Frazier, A. P., Mitchell, D. N., Given, K. S., Hunn, G., Burch, A. M., Childs, C. R., Moreno-Garcia, M., Corigilano, M. R., Quillinan, N., Macklin, W. B., Herson, P. S. & Dingman, A. L. (2023). Chronic changes in oligodendrocyte sub-populations after middle cerebral artery occlusion in neonatal mice. *Glia.* **71**, 1429-1450. <https://doi.org/10.1002/glia.24349>.
32. Rodgers, A., Sawaged, M., Ostrovsky, D. & Vugmeyster, L. (2023). Effect of Cross-Seeding of Wild-Type Amyloid- β (1-40) Peptides with Post-translationally Modified Fibrils on

- Internal Dynamics of the Fibrils Using Deuterium Solid-State NMR. *J Phys Chem B*. **127**, 2887-2899. <https://doi.org/10.1021/acs.jpcc.2c07817>.
33. Sasaoka, A., Arellano, O., Hatch, X. R. & Garcia Costas, A. M. (2023). Genome sequence of bacteriophage Aoka, a cluster FO phage isolated using *Arthrobacter globiformis*. *Microbiol Resour Announc*. **12**, e0045423. <https://doi.org/10.1128/MRA.00454-23>.
34. Whelan, R., Feemster, A., Laskowski, J., Renner, B., Kulik, L., Poppelaars, F., Lee, C., Holers, V. M. & Thurman, J. M. (2023). Female but Not Male Mice Deficient in Soluble IgM Are Susceptible to Chemically Induced Glomerular Injury. *J Immunol*. **211**, 1240-1248. <https://doi.org/10.4049/jimmunol.2200292>.
35. Zhou, W., Graner, M., Paucek, P., Beseler, C., Boisen, M., Bubak, A., Asturias, F., George, W., Graner, A., Ormond, D., Vollmer, T., Alvarez, E. & Yu, X. (2023). Multiple sclerosis plasma IgG aggregates induce complement-dependent neuronal apoptosis. *Cell Death Dis*. **14**, 254. <https://doi.org/10.1038/s41419-023-05783-3>.
36. Kamboj, S., Harms, C., Wright, D., Nash, A., Kumar, L., Klein-Seetharaman, J. & Sarkar, S. K. (2022). Identification of allosteric fingerprints of alpha-synuclein aggregates in matrix metalloprotease-1 and substrate-specific virtual screening with single molecule insights. *Sci Rep*. **12**, 5764. <https://doi.org/10.1038/s41598-022-09866-7>.
37. O'Neill, K. I., Kuo, L. W., Williams, M. M., Lind, H., Crump, L. S., Hammond, N. G., Spoelstra, N. S., Caino, M. C. & Richer, J. K. (2022). NPC1 Confers Metabolic Flexibility in Triple Negative Breast Cancer. *Cancers (Basel)*. **14**. <https://doi.org/10.3390/cancers14143543>.
38. Lucas, A., Poleg, S., Klug, A. & McCullagh, E. A. (2021). Myelination Deficits in the Auditory Brainstem of a Mouse Model of Fragile X Syndrome. *Front Neurosci*. **15**, 772943. <https://doi.org/10.3389/fnins.2021.772943>.