

# News

Newsletters and other information

- [Newsletters](#)
- [Publications](#)
  - [2024](#)
  - [2023](#)
  - [2022](#)
  - [2021](#)
  - [2020](#)
  - [2019](#)
  - [2018](#)

# Newsletters

## Subscribe!

We send our newsletter (and some other Cell Imaging news) to subscribers to our email list. You can subscribe or unsubscribe by visiting:

<https://www.lists.utah.edu/www/info/uofumicroscopy>

Note: We sometimes send news about specific microscopes using the Cores Resource message system. If you have used a specific microscope, you might get news about outages and repairs even if you have unsubscribed to the newsletter. Sorry. They are separate systems and we don't know of a way to unsubscribe from the Cores Resource message system.

## October 2023

Contents:

- Zeiss Axioscan 7 is ready to use
- Instrument demo by Discovery Echo
- Update for CosMx Spatial Molecular Imager
- Olympus FV4000 demo at Neuroscience 2023

Link: <https://cores.utah.edu/wp-content/uploads/2023/11/CellImagingNewsletterOctober-2023.pdf>

## August 2023

Contents:

- Personnel Changes in HSC Cell Imaging Core
- New instrument: NanoString CosMx Spatial Molecular Imager
- New instrument: Zeiss Axioscan 7
- Nikon A1R back online
- New rate table for fiscal year 2024
- Nikon Spinning Disk Confocal + TIRF microscope is ready to use

Link: <https://cores.utah.edu/wp-content/uploads/2023/11/CellImagingNewsletterAug2023.pdf>

# May 2023

Contents:

- New Nikon Ring-TIRF/Spinning Disk Confocal Microscope
- SMBB Location closed
- Acknowledgement and Publication Collection
- Survey for new instrument acquisition
- Integrate an instrument into the core
- Free laser table in SMBB
- More new instruments are coming...

Link: <https://cores.utah.edu/wp-content/uploads/2023/11/CellImagingNewsletterMay2023.pdf>

# March 2023

Contents:

- Zeiss Axioscan 7 is coming
- Slide scanner features
- Olympus all-in-one fluorescence microscope demo
- Hiring
- Future instruments

Link: <https://cores.utah.edu/wp-content/uploads/2023/11/CellImagingNewsletterMarch2023.pdf>

# Publications

Publications that cite the Cell Imaging Core

# 2024

July 2023 - June 2024

1. Anderl, W. J., Pearson, N., Converse, M. I., Yu, S. M., & Monson, K. L. (2023). Strain-induced collagen denaturation is rate dependent in failure of cerebral arteries. *Acta Biomaterialia*, 164, 282–292. <https://doi.org/10.1016/j.actbio.2023.04.032>
2. Anderson, B., Blair, D., Huff, K., Wisniewski, J., Warner, K. S., & Kauser, K. (2023). Photochemical Modification of the Extracellular Matrix to Alter the Vascular Remodeling Process. *Journal of Functional Biomaterials*, 14(12), Article 12. <https://doi.org/10.3390/jfb14120566>
3. Carey, C. M., Hollins, H. L., Schmid, A. V., & Gagnon, J. A. (2024). Distinct features of the regenerating heart uncovered through comparative single-cell profiling. *Biology Open*, 13(4), bio060156. <https://doi.org/10.1242/bio.060156>
4. Carney, K. R., Khan, A. M., Stam, S., Samson, S. C., Mittal, N., Han, S. J., Bidone, T. C., & Mendoza, M. C. (2023a). Nascent adhesions shorten the period of lamellipodium protrusion through the Brownian ratchet mechanism. *Molecular Biology of the Cell*, mbc.E23-08-0314. <https://doi.org/10.1091/mbc.E23-08-0314>
5. Carney, K. R., Khan, A. M., Stam, S., Samson, S. C., Mittal, N., Han, S. J., Bidone, T. C., & Mendoza, M. C. (2023b). Nascent adhesions shorten the period of lamellipodium protrusion through the Brownian ratchet mechanism. *Molecular Biology of the Cell*, 34(12), ar115. <https://doi.org/10.1091/mbc.E23-08-0314>
6. Casey, M. J., Chan, P. P., Li, Q., Jette, C. A., Kohler, M., Myers, B. R., & Stewart, R. A. (2024). A Simple and Scalable Zebrafish Model of Sonic Hedgehog Medulloblastoma (p. 2024.02.03.577834). bioRxiv. <https://doi.org/10.1101/2024.02.03.577834>
7. Chiola, S., Yang, J., Ullah, H. M. A., Napan, K., Huang, Q., Gamboa, N., Youssef, O., Colman, H., Cheshier, S. H., & Shcheglovitov, A. (2023). Transcriptional changes consistent with altered neuronal differentiation, angiogenesis, and tumor plasticity induced in human subpallial telencephalic organoid-glioblastoma chimeras (p. 2023.05.11.540229). bioRxiv. <https://doi.org/10.1101/2023.05.11.540229>
8. Collins, B. C., Shapiro, J. B., Scheib, M. M., Musci, R. V., Verma, M., & Kardon, G. (2024). Three-dimensional imaging studies in mice identify cellular dynamics of skeletal muscle regeneration. *Developmental Cell*. <https://doi.org/10.1016/j.devcel.2024.03.017>
9. de Hart, N. M. M. P., Petrocelli, J. J., Nicholson, R. J., Yee, E. M., van Onselen, L., Lang, M. J., Bourrant, P.-E., Ferrara, P. J., Bastian, E. D., Ward, L. S., Petersen, B. L., & Drummond, M. J. (2023). Dietary delivery of glycomacropeptide within the whey protein matrix is not effective in mitigating tissue ceramide deposition and obesity in high fat fed mice. *Journal*

of Dairy Science. <https://doi.org/10.3168/jds.2023-23914>

10. de Hart, N. M. M. P., Petrocelli, J. J., Nicholson, R. J., Yee, E. M., van Onselen, L., Lang, M. J., Bourrant, P.-E., Ferrara, P. J., Bastian, E. D., Ward, L. S., Petersen, B. L., & Drummond, M. J. (2024). Dietary delivery of glycomacropeptide within the whey protein matrix is not effective in mitigating tissue ceramide deposition and obesity in mice fed a high-fat diet. *Journal of Dairy Science*, 107(2), 669–682. <https://doi.org/10.3168/jds.2023-23914>
11. de Hart, N. MMP., Petrocelli, J. J., Nicholson, R. J., Yee, E. M., Ferrara, P. J., Bastian, E. D., Ward, L. S., Petersen, B. L., Summers, S. A., & Drummond, M. J. (2023). Palmitate-Induced Inflammation and Myotube Atrophy in C2C12 Cells Are Prevented by the Whey Bioactive Peptide, Glycomacropeptide. *The Journal of Nutrition*, 153(10), 2915–2928. <https://doi.org/10.1016/j.tjn.2023.08.033>
12. Digal, L., Samson, S., Stevens, M., Ghorai, A., Kim, H., Mifflin, M., Carney, K., Williamson, D., Um, S., Nagy, G., Oh, D.-C., Mendoza, M., & Roberts, A. (2023). *Non-threaded isomers of sungsanpin and ulleungdin lasso peptides inhibit H1299 cancer cell migration* [Preprint]. Chemistry. <https://doi.org/10.26434/chemrxiv-2023-cfnrh>
13. Ellis, K. E., Bervoets, S., Smihula, H., Ganguly, I., Vigato, E., Auer, T. O., Benton, R., Litwin-Kumar, A., & Caron, S. J. C. (2023). *Evolution of connectivity architecture in the Drosophila mushroom body* (p. 2023.02.10.528036). bioRxiv. <https://doi.org/10.1101/2023.02.10.528036>
14. Fennel, Z. J., Bourrant, P.-E., Kurian, A. S., Petrocelli, J. J., de Hart, N. M. M. P., Yee, E. M., Boudina, S., Keirstead, H. S., Nistor, G., Greilach, S. A., Berchtold, N. C., Lane, T. E., & Drummond, M. J. (n.d.). Stem cell secretome treatment improves whole-body metabolism, reduces adiposity, and promotes skeletal muscle function in aged mice. *Aging Cell*, n/a (n/a), e14144. <https://doi.org/10.1111/accel.14144>
15. Figueroa, K. P., Gross, C., Atienza, E. B., Paul, S., Gandelman, M., Haack, T., Kakar, N., Sturm, M., Casadei, N., Admard, J., Park, J., Zühlke, C., Hellenbroich, Y., Pozojevic, J., Balachandran, S., Händler, K., Zittel, S., Timmann, D., Erdlenbruch, F., ... Pulst, S. M. (2023). *GGC expansion in ZFH3 causes SCA4 and impairs autophagy* (p. 2023.10.26.23297560). medRxiv. <https://doi.org/10.1101/2023.10.26.23297560>
16. Figueroa, K. P., Gross, C., Buena-Atienza, E., Paul, S., Gandelman, M., Kakar, N., Sturm, M., Casadei, N., Admard, J., Park, J., Zühlke, C., Hellenbroich, Y., Pozojevic, J., Balachandran, S., Händler, K., Zittel, S., Timmann, D., Erdlenbruch, F., Herrmann, L., ... Pulst, S. M. (2024). A GGC-repeat expansion in ZFH3 encoding polyglycine causes spinocerebellar ataxia type 4 and impairs autophagy. *Nature Genetics*, 1–10. <https://doi.org/10.1038/s41588-024-01719-5>
17. Guo, L., Jacob, S., Manne, B. K., Kolawole, E. M., Guo, S., Wang, X., Murray, D., Tugolukova, E. A., Portier, I., Kosaka, Y., Barba, C., Rondina, M. T., Evavold, B., Morley, C., Bhatlekar, S., & Bray, P. F. (2023). Actin-bundling protein L-plastin promotes megakaryocyte rigidity and dampens proplatelet formation. *Haematologica*, 109(1), 331–336. <https://doi.org/10.3324/haematol.2023.283016>
18. Herstine, J. A., Chang, P.-K., Chorny, S., Stevenson, T. J., Sunshine, A. C., Nokhrina, K., Rediger, J., Wentz, J., Vetter, T. A., Scholl, E., Holaway, C., Pyne, N. K., Bratasz, A., Yeoh, S., Flanagan, K. M., Bonkowsky, J. L., & Bradbury, A. M. (2024). Evaluation of safety and early efficacy of AAV gene therapy in mouse models of vanishing white matter disease.

*Molecular Therapy: The Journal of the American Society of Gene Therapy*, S1525-0016(24)00212-0. <https://doi.org/10.1016/j.ymthe.2024.03.034>

19. Merrill, C. B., Titos, I., Pabon, M. A., Montgomery, A. B., Rodan, A. R., & Rothenfluh, A. (2024). Iterative assay for transposase-accessible chromatin by sequencing to isolate functionally relevant neuronal subtypes. *Science Advances*, 10(13), eadi4393. <https://doi.org/10.1126/sciadv.adi4393>
20. Morales, J. C. F., Redfearn, C., Titus, M. A., & Roh-Johnson, M. (2024). *Reduced PaxillinB localization to cell-substrate adhesions promotes cell migration in Dictyostelium* (p. 2024.03.19.585764). bioRxiv. <https://doi.org/10.1101/2024.03.19.585764>
21. Moriwaki, M., Liu, L., James, E. R., Tolley, N., O'Connor, A. M., Emery, B., Aston, K. I., Campbell, R. A., & Welt, C. K. (2024). *Heterozygous Eif4nif1 Stop Gain Mice Replicate the Primary Ovarian Insufficiency Phenotype in Women* (p. 2024.04.09.588694). bioRxiv. <https://doi.org/10.1101/2024.04.09.588694>
22. Nwagbo, U., Parvez, S., Maschek, J. A., & Bernstein, P. S. (2024). Elovl4b knockout zebrafish as a model for ocular very-long-chain PUFA deficiency. *Journal of Lipid Research*, 65(3). <https://doi.org/10.1016/j.jlr.2024.100518>
23. Paine, E. L., Skalicky, J. J., Whitby, F. G., Mackay, D. R., Ullman, K. S., Hill, C. P., & Sundquist, W. I. (2023). The Calpain-7 protease functions together with the ESCRT-III protein IST1 within the midbody to regulate the timing and completion of abscission. *eLife*, 12, e84515. <https://doi.org/10.7554/eLife.84515>
24. Petrocelli, J. J., McKenzie, A. I., de Hart, N. M. M. P., Reidy, P. T., Mahmassani, Z. S., Keeble, A. R., Kaput, K. L., Wahl, M. P., Rondina, M. T., Marcus, R. L., Welt, C. K., Holland, W. L., Funai, K., Fry, C. S., & Drummond, M. J. (n.d.). Disuse-induced muscle fibrosis, cellular senescence, and senescence-associated secretory phenotype in older adults are alleviated during re-ambulation with metformin pre-treatment. *Aging Cell*, n/a(n/a), e13936. <https://doi.org/10.1111/accel.13936>
25. Scherer, S. D., Zhao, L., Butterfield, A. J., Yang, C.-H., Cortes-Sanchez, E., Guillen, K. P., Welm, B. E., & Welm, A. L. (2023). Breast cancer PDxO cultures for drug discovery and functional precision oncology. *STAR Protocols*, 4(3), 102402. <https://doi.org/10.1016/j.xpro.2023.102402>
26. Smith, J. J., Valentino, T. R., Ablicki, A. H., Banerjee, R., Colligan, A. R., Eckert, D. M., Desjardins, G. A., & Diehl, K. L. (2024). *A genetically-encoded fluorescent biosensor for visualization of acetyl-CoA in live cells* (p. 2023.12.31.573774). bioRxiv. <https://doi.org/10.1101/2023.12.31.573774>
27. Van Scoyk, A. N., Antelope, O., Franzini, A., Ayer, D. E., Peterson, R. T., Pomicter, A. D., Owen, S. C., & Deininger, M. W. (2023). Bioluminescence Assay of Lysine Deacylase Sirtuin Activity. *bioRxiv*, 2023.08.10.552871. <https://doi.org/10.1101/2023.08.10.552871>
28. Verma, S., Giagnocavo, S. D., Curtin, M. C., Arumugam, M., Osburn-Staker, S. M., Wang, G., Atkinson, A., Nix, D. A., Lum, D. H., Cox, J. E., & Hilgendorf, K. I. (2024). *Zinc Alpha-2-Glycoprotein (ZAG/AZGP1) secreted by triple-negative breast cancer promotes tumor microenvironment fibrosis* (p. 2024.03.04.583349). bioRxiv. <https://doi.org/10.1101/2024.03.04.583349>

29. Walker, M. F., Zhang, J., Steiner, W., Ku, P.-I., Zhu, J.-F., Michaelson, Z., Yen, Y.-C., Lee, A., Long, A. B., Casey, M. J., Poddar, A., Nelson, I. B., Arveseth, C. D., Nagel, F., Clough, R., LaPotin, S., Kwan, K. M., Schulz, S., Stewart, R. A., ... Myers, B. R. (2024). *GRK2 Kinases in the Primary Cilium Initiate SMOOTHENED-PKA Signaling in the Hedgehog Cascade* (p. 2023.05.10.540226). bioRxiv. <https://doi.org/10.1101/2023.05.10.540226>
30. Wallis, G. J., Bell, L. A., Wagner, J. N., Buxton, L., Balachandar, L., & Wilcox, K. S. (2024). *Reactive microglia fail to respond to environmental damage signals in a viral-induced mouse model of temporal lobe epilepsy* (p. 2024.03.06.583768). bioRxiv. <https://doi.org/10.1101/2024.03.06.583768>



# 2023

July 2022 - June 2023

1. Almanzar, D. E., Gordon, S. G., Bristow, C., Hamrick, A., von Diezmann, L., Liu, H., & Rog, O. (2023). Meiotic DNA exchanges in *C. elegans* are promoted by proximity to the synaptonemal complex. *Life Science Alliance*, 6(4), e202301906.  
<https://doi.org/10.26508/lsa.202301906>
2. Anderl, W. J., Pearson, N., Converse, M. I., Yu, S. M., & Monson, K. L. (2023). Strain-induced collagen denaturation is rate dependent in failure of cerebral arteries. *Acta Biomaterialia*.  
<https://doi.org/10.1016/j.actbio.2023.04.032>
3. Ellis, K. E., Smihula, H., Ganguly, I., Vigato, E., Bervoets, S., Auer, T. O., Benton, R., Litwin-Kumar, A., & Caron, S. J. C. (2023). *Evolution of connectivity architecture in the Drosophila mushroom body* [Preprint]. Neuroscience. <https://doi.org/10.1101/2023.02.10.528036>
4. Eshima, H., Shahtout, J. L., Siripoksup, P., Pearson, M. J., Mahmassani, Z. S., Ferrara, P. J., Lyons, A. W., Maschek, J. A., Peterlin, A. D., Verkerke, A. R. P., Johnson, J. M., Salcedo, A., Petrocelli, J. J., Miranda, E. R., Anderson, E. J., Boudina, S., Ran, Q., Cox, J. E., Drummond, M. J., & Funai, K. (2023). Lipid hydroperoxides promote sarcopenia through carbonyl stress. *eLife*, 12, e85289. <https://doi.org/10.7554/eLife.85289>
5. Espino-Sanchez, T. J., Wienkers, H., Marvin, R. G., Nalder, S.-A., García-Guerrero, A. E., VanNatta, P. E., Jami-Alahmadi, Y., Mixon Blackwell, A., Whitby, F. G., Wohlschlegel, J. A., Kieber-Emmons, M. T., Hill, C. P., & Sigala, P. A. (2023). Direct tests of cytochrome c and c1 functions in the electron transport chain of malaria parasites. *Proceedings of the National Academy of Sciences of the United States of America*, 120(19), e2301047120.  
<https://doi.org/10.1073/pnas.2301047120>
6. Ferrara, P. J., Reidy, P. T., Petrocelli, J. J., Yee, E. M., Fix, D. K., Mahmassani, Z. S., Montgomery, J. A., McKenzie, A. I., de Hart, N. M. M. P., & Drummond, M. J. (2023). Global deletion of CCL2 has adverse impacts on recovery of skeletal muscle fiber size and function and is muscle-specific. *Journal of Applied Physiology*.  
<https://doi.org/10.1152/jappphysiol.00444.2022>
7. Hagen-Lillevik, S., Johnson, J., & Lai, K. (2022). Early postnatal alterations in follicular stress response and survival in a mouse model of Classic Galactosemia. *Journal of Ovarian Research*, 15(1), 122. <https://doi.org/10.1186/s13048-022-01049-2>
8. Hagen-Lillevik, S., Johnson, J., Siddiqi, A., Persinger, J., Hale, G., & Lai, K. (2022). Harnessing the Power of Purple Sweet Potato Color and Myo-Inositol to Treat Classic Galactosemia. *International Journal of Molecular Sciences*, 23(15), 8654.  
<https://doi.org/10.3390/ijms23158654>

9. He, Y., Anderson, B., Hu, Q., Hayes, R. B., Huff, K., Isaacson, J., Warner, K. S., Hauser, H., Greenberg, M., Chandra, V., Kauser, K., & Berceli, S. A. (2023). Photochemically Aided Arteriovenous Fistula Creation to Accelerate Fistula Maturation. *International Journal of Molecular Sciences*, 24(8), Article 8. <https://doi.org/10.3390/ijms24087571>
10. Hoffman, L. M., Jensen, C. C., & Beckerle, M. C. (2022). Phosphorylation of the small heat shock protein HspB1 regulates cytoskeletal recruitment and cell motility. *Molecular Biology of the Cell*, 33(11), ar100. <https://doi.org/10.1091/mbc.E22-02-0057>
11. Kidwell, C. U., Casalini, J. R., Pradeep, S., Scherer, S. D., Greiner, D., Bayik, D., Watson, D. C., Olson, G. S., Lathia, J. D., Johnson, J. S., Rutter, J., Welm, A. L., Zangle, T. A., & Roh-Johnson, M. (2023). Transferred mitochondria accumulate reactive oxygen species, promoting proliferation. *eLife*, 12, e85494. <https://doi.org/10.7554/eLife.85494>
12. Lajoie, D., Turkmen, A. M., Mackay, D. R., Jensen, C. C., Aksenova, V., Niwa, M., Dasso, M., & Ullman, K. S. (2022). A role for Nup153 in nuclear assembly reveals differential requirements for targeting of nuclear envelope constituents. *Molecular Biology of the Cell*, 33(13), ar117. <https://doi.org/10.1091/mbc.E22-05-0189>
13. Merrill, C. B., Titos, I., Pabon, M. A., Montgomery, A. B., Rodan, A. R., & Rothenfluh, A. (2023). Iterative assay for transposase-accessible chromatin by sequencing to isolate functionally relevant neuronal subtypes (p. 2023.04.14.536950). bioRxiv. <https://doi.org/10.1101/2023.04.14.536950>
14. Petrocelli, J. J., Hart, N. M. M. P. de, Lang, M. J., Yee, E. M., Ferrara, P. J., Fix, D. K., Chaix, A., Funai, K., & Drummond, M. J. (2023). Cellular senescence and disrupted proteostasis induced by myotube atrophy are prevented with low-dose metformin and leucine cocktail. *Aging*, 15. <https://doi.org/10.18632/aging.204600>
15. Preston, A. J., Rogers, A., Sharp, M., Mitchell, G., Toruno, C., Barney, B. B., Donovan, L. N., Bly, J., Kennington, R., Payne, E., Iovino, A., Furukawa, G., Robinson, R., Shamloo, B., Buccilli, M., Anders, R., Eckstein, S., Fedak, E. A., Wright, T., ... Abegglen, L. M. (2023). Elephant TP53-RETROGENE 9 induces transcription-independent apoptosis at the mitochondria. *Cell Death Discovery*, 9(1), Article 1. <https://doi.org/10.1038/s41420-023-01348-7>
16. Rice, M. C., Little, J. H., Forrister, D. L., Machado, J., Clark, N. L., & Gagnon, J. A. (2023). *Gadusol is a maternally provided sunscreen that protects fish embryos from DNA damage* [Preprint]. Developmental Biology. <https://doi.org/10.1101/2023.01.30.526370>
17. Rush, C. M., Blanchard, Z., Polaski, J. T., Osborne, K. S., Osby, K., Vahrenkamp, J. M., Yang, C.-H., Lum, D. H., Hagan, C. R., Leslie, K. K., Pufall, M. A., Thiel, K. W., & Gertz, J. (2022). Characterization of HCl-EC-23 a novel estrogen- and progesterone-responsive endometrial cancer cell line. *Scientific Reports*, 12(1), Article 1. <https://doi.org/10.1038/s41598-022-24211-8>
18. Sefton, E. M., Gallardo, M., Tobin, C. E., Collins, B. C., Colasanto, M. P., Merrell, A. J., & Kardon, G. (2022). Fibroblast-derived Hgf controls recruitment and expansion of muscle during morphogenesis of the mammalian diaphragm. *eLife*, 11, e74592. <https://doi.org/10.7554/eLife.74592>
19. Simeone, C. A., Wilkerson, J. L., Poss, A. M., Banks, J. A., Varre, J. V., Guevara, J. L., Hernandez, E. J., Gorski, B., Atkinson, D. L., Turapov, T., Frodsham, S. G., Morales, J. C. F.,

- O'Neil, K., Moore, B., Yandell, M., Summers, S. A., Krolewski, A. S., Holland, W. L., & Pezzolesi, M. G. (2022). A dominant negative ADIPOQ mutation in a diabetic family with renal disease, hypoadiponectinemia, and hyperceramidemia. *Npj Genomic Medicine*, 7(1), Article 1. <https://doi.org/10.1038/s41525-022-00314-z>
20. Smith, M. A., Blankman, E., Jensen, C. C., Hoffman, L. M., Ullman, K. S., & Beckerle, M. C. (2022). Nuclear pore complexes concentrate on Actin/LINC/Lamin nuclear lines in response to mechanical stress in a SUN1 dependent manner. *Heliyon*, 8(12), e12147. <https://doi.org/10.1016/j.heliyon.2022.e12147>
21. Stover, J. D., Trone, M. A., Lawrence, B., & Bowles, R. D. (n.d.). Multiplex epigenome editing of ion channel expression in nociceptive neurons abolished degenerative IVD-conditioned media-induced mechanical sensitivity. *JOR SPINE*, n/a(n/a), e1253. <https://doi.org/10.1002/jsp2.1253>
22. Su, G., Farhat, R., Laxman, A. K., Chapman-Natewa, K., Nelson, I. E., & Chan, O. (2023). Astrocyte glycogen is a major source of hypothalamic lactate in rats with recurrent hypoglycemia. *Diabetes*, db220902. <https://doi.org/10.2337/db22-0902>
23. Wang, Y., Chiola, S., Yang, G., Russell, C., Armstrong, C. J., Wu, Y., Spampinato, J., Tarboton, P., Ullah, H. M. A., Edgar, N. U., Chang, A. N., Harmin, D. A., Bocchi, V. D., Vezzoli, E., Besusso, D., Cui, J., Cattaneo, E., Kubanek, J., & Shcheglovitov, A. (2022). Modeling human telencephalic development and autism-associated SHANK3 deficiency using organoids generated from single neural rosettes. *Nature Communications*, 13(1), Article 1. <https://doi.org/10.1038/s41467-022-33364-z>
24. Warde, K. M., Smith, L. J., Liu, L., Stubben, C. J., Lohman, B. K., Willett, P. W., Ammer, J. L., Castaneda-Hernandez, G., Imodoye, S. O., Zhang, C., Jones, K. D., Converso-Baran, K., Ekiz, H. A., Barry, M., Clay, M. R., Kiseljak-Vassiliades, K., Giordano, T. J., Hammer, G. D., & Basham, K. J. (2023). Senescence-induced immune remodeling facilitates metastatic adrenal cancer in a sex-dimorphic manner. *Nature Aging*, 1-20. <https://doi.org/10.1038/s43587-023-00420-2>
25. Wenzel, D. M., Mackay, D. R., Skalicky, J. J., Paine, E. L., Miller, M. S., Ullman, K. S., & Sundquist, W. I. (2022). Comprehensive analysis of the human ESCRT-III-MIT domain interactome reveals new cofactors for cytokinetic abscission. *eLife*, 11, e77779. <https://doi.org/10.7554/eLife.77779>
26. Xue, Q., Varady, S. R. S., Waddell, T. Q. A., Roman, M. R., Carrington, J., & Roh-Johnson, M. (2023). Lack of Paxillin phosphorylation promotes single-cell migration in vivo. *The Journal of Cell Biology*, 222(3), e202206078. <https://doi.org/10.1083/jcb.202206078>
27. Zhang, C., Jin, Y., Marchetti, M., Lewis, M. R., Hammouda, O. T., & Edgar, B. A. (2022). EGFR signaling activates intestinal stem cells by promoting mitochondrial biogenesis and  $\beta$ -oxidation. *Current Biology*. <https://doi.org/10.1016/j.cub.2022.07.003>

# 2022

July 2021 - June 2022

1. Batot, G., Metcalf, C., Bell, L., Pauletti, A., Wilcox, K., & Bröer, S. (2022). A Model for Epilepsy of Infectious Etiology using Theiler's Murine Encephalomyelitis Virus. *Journal of Visualized Experiments*. <https://doi.org/10.3791/63673>
2. Cho, J. M., Park, S.-K., Kwon, O. S., La Salle, D. T., Cerbie, J., Fermoyle, C. C., Morgan, D., Nelson, A., Bledsoe, A., Bharath, L. P., Tandar, M., Kunapuli, S. P., Richardson, R. S., Anandh Babu, P. V., Mookherjee, S., Kishore, B. K., Wang, F., Yang, T., Boudina, S., ... Symons, J. D. (2022). Activating P2Y1 receptors improves function in arteries with repressed autophagy. *Cardiovascular Research*, cvac061. <https://doi.org/10.1093/cvr/cvac061>
3. Fadul, J., Zulueta-Coarasa, T., Slattum, G. M., Redd, N. M., Jin, M. F., Redd, M. J., Daetwyler, S., Hedeem, D., Huisken, J., & Rosenblatt, J. (2021). KRas-transformed epithelia cells invade and partially dedifferentiate by basal cell extrusion. *Nature Communications*, 12(1), Article 1. <https://doi.org/10.1038/s41467-021-27513-z>
4. Falekun, S., Sepulveda, J., Jami-Alahmadi, Y., Park, H., Wohlschlegel, J. A., & Sigala, P. A. (2021). Divergent acyl carrier protein decouples mitochondrial Fe-S cluster biogenesis from fatty acid synthesis in malaria parasites. *eLife*, 10, e71636. <https://doi.org/10.7554/eLife.71636>
5. Ferrara, P. J., Verkerke, A. R. P., Maschek, J. A., Shahtout, J. L., Siripoksup, P., Eshima, H., Johnson, J. M., Petrocelli, J. J., Mahmassani, Z. S., Green, T. D., McClung, J. M., Cox, J. E., Drummond, M. J., & Funai, K. (2021). Low lysophosphatidylcholine induces skeletal muscle myopathy that is aggravated by high-fat diet feeding. *The FASEB Journal*, 35(10), e21867. <https://doi.org/10.1096/fj.202101104R>
6. Figueroa, K., Anderson, C. J., Paul, S., Dansithong, W., Gandelman, M., Scoles, D. R., & Pulst, S. M. (2022). *Slc9a6 mutation causes Purkinje cell loss and ataxia in the shaker rat* [Preprint]. Neuroscience. <https://doi.org/10.1101/2022.03.28.486143>
7. Fix, D. K., Ekiz, H. A., Petrocelli, J. J., McKenzie, A. M., Mahmassani, Z. S., O'Connell, R. M., & Drummond, M. J. (2021). Disrupted macrophage metabolic reprogramming in aged soleus muscle during early recovery following disuse atrophy. *Aging Cell*, 20(9). <https://doi.org/10.1111/acer.13448>
8. Fix, D. K., Mahmassani, Z. S., Petrocelli, J. J., de Hart, N. M. M. P., Ferrara, P. J., Painter, J. S., Nistor, G., Lane, T. E., Keirstead, H. S., & Drummond, M. J. (2021). Reversal of deficits in aged skeletal muscle during disuse and recovery in response to treatment with a secretome product derived from partially differentiated human pluripotent stem cells.

*GeroScience*, 43(6), 2635–2652. <https://doi.org/10.1007/s11357-021-00423-0>

9. Guillen, K. P., Fujita, M., Butterfield, A. J., Scherer, S. D., Bailey, M. H., Chu, Z., DeRose, Y. S., Zhao, L., Cortes-Sanchez, E., Yang, C.-H., Toner, J., Wang, G., Qiao, Y., Huang, X., Greenland, J. A., Vahrenkamp, J. M., Lum, D. H., Factor, R. E., Nelson, E. W., ... Welm, A. L. (2022). A human breast cancer-derived xenograft and organoid platform for drug discovery and precision oncology. *Nature Cancer*, 3(2), Article 2.  
<https://doi.org/10.1038/s43018-022-00337-6>
10. Happ, J. T., Arveseth, C. D., Bruystens, J., Bertinetti, D., Nelson, I. B., Olivieri, C., Hedeem, D. S., Zhu, J.-F., Capener, J. L., Bröckel, J. W., Vu, L., King, C. C., Ruiz-Perez, V. L., Veglia, G., Herberg, F. W., Taylor, S. S., & Myers, B. R. (2021). A PKA Inhibitor Motif within Smoothed Controls Hedgehog Signal Transduction. *bioRxiv*.  
<https://doi.org/10.1101/2021.07.05.451193>
11. Hill, J. H., Massaquoi, M. S., Sweeney, E. G., Wall, E. S., Jahl, P., Bell, R., Kallio, K., Derrick, D., Murtaugh, L. C., Parthasarathy, R., Remington, S. J., Round, J. L., & Guillemin, K. (2022). A microbiota membrane disrupter disseminates to the pancreas and increases  $\beta$ -cell mass (p. 2022.03.24.485696). *bioRxiv*. <https://doi.org/10.1101/2022.03.24.485696>
12. Ingram, K., Samson, S. C., Zewdu, R., Zitnay, R. G., Snyder, E. L., & Mendoza, M. C. (2022). NKX2-1 controls lung cancer progression by inducing DUSP6 to dampen ERK activity. *Oncogene*, 41(2), Article 2. <https://doi.org/10.1038/s41388-021-02076-x>
13. Jensen, O., Trivedi, S., Meier, J. D., Fairfax, K. C., Hale, J. S., & Leung, D. T. (2022). A subset of follicular helper-like MAIT cells can provide B cell help and support antibody production in the mucosa. *Science Immunology*, 7(67), eabe8931.  
<https://doi.org/10.1126/sciimmunol.abe8931>
14. Kaur, K., Mohammadpour, R., Ghandehari, H., Reilly, C. A., Paine, R., & Kelly, K. E. (2022). Effect of combustion particle morphology on biological responses in a Co-culture of human lung and macrophage cells. *Atmospheric Environment*, 284, 119194.  
<https://doi.org/10.1016/j.atmosenv.2022.119194>
15. Kaur, K., Mohammadpour, R., Sturrock, A., Ghandehari, H., Reilly, C., Paine, R., & Kelly, K. E. (2022). Comparison of biological responses between submerged, pseudo-air-liquid interface, and air-liquid interface exposure of A549 and differentiated THP-1 co-cultures to combustion-derived particles. *Journal of Environmental Science and Health, Part A*, 57(7), 540–551. <https://doi.org/10.1080/10934529.2022.2083429>
16. Kursel, L. E., Cope, H. D., & Rog, O. (2021). Unconventional conservation reveals structure-function relationships in the synaptonemal complex. *eLife*, 10, e72061.  
<https://doi.org/10.7554/eLife.72061>
17. LaBelle, S. A., Dinkins, S. S., Hoying, J. B., Budko, E. V., Rauff, A., Strobel, H. A., Lin, A. H., & Weiss, J. A. (2022). Matrix anisotropy promotes angiogenesis in a density-dependent manner. *American Journal of Physiology-Heart and Circulatory Physiology*, 322(5), H806–H818. <https://doi.org/10.1152/ajpheart.00072.2022>
18. Lai, S.-C. A., Gundlapalli, H., Ekiz, H. A., Jiang, A., Fernandez, E., & Welm, A. L. (2021). Blocking Short-Form Ron Eliminates Breast Cancer Metastases through Accumulation of Stem-Like CD4+ T Cells That Subvert Immunosuppression. *Cancer Discovery*, 11(12), 3178–3197. <https://doi.org/10.1158/2159-8290.CD-20-1172>

19. Lam, G., Beebe, K., & Thummel, C. S. (2022). A direct-drive GFP reporter for studies of tracheal development in *Drosophila*. *Fly*, 16(1), 105–110.  
<https://doi.org/10.1080/19336934.2022.2030191>
20. Lin, Y., Perovanovic, J., Kong, Y., Igyarto, B. Z., Zurawski, S., Tantin, D., Zurawski, G., Bettini, M., & Bettini, M. L. (2022). Antibody-Mediated Targeting of a Hybrid-Insulin-Peptide Towards Neonatal Thymic Langerin+ Cells Enhances T Cell Central Tolerance and Delays Autoimmune Diabetes. *Diabetes*, db211069. <https://doi.org/10.2337/db21-1069>
21. Liu, H., Gordon, S. G., & Rog, O. (2021). Heterologous synapsis in *C. elegans* is regulated by meiotic double-strand breaks and crossovers. *Chromosoma*, 130(4), 237–250.  
<https://doi.org/10.1007/s00412-021-00763-y>
22. Marchetti, M., Zhang, C., & Edgar, B. A. (2021). *An improved organ explant culture method reveals stem cell lineage dynamics in the adult Drosophila intestine*. bioRxiv.  
<https://doi.org/10.1101/2021.12.17.473114>
23. Mathew, B., Aoyagi, K. L., & Fisher, M. A. (2021). *Yersinia pestis* Lipopolysaccharide Remodeling Confers Resistance to a *Xenopsylla cheopis* Cecropin. *ACS Infectious Diseases*, 7(8), 2536–2545. <https://doi.org/10.1021/acsinfecdis.1c00275>
24. McKenzie, A. I., Mahmassani, Z. S., Petrocelli, J. J., de Hart, N. M. M. P., Fix, D. K., Ferrara, P. J., LaStayo, P. C., Marcus, R. L., Rondina, M. T., Summers, S. A., Johnson, J. M., Trinity, J. D., Funai, K., & Drummond, M. J. (2022). Short-term exposure to a clinical dose of metformin increases skeletal muscle mitochondrial H<sub>2</sub>O<sub>2</sub> emission and production in healthy, older adults: A randomized controlled trial. *Experimental Gerontology*, 163, 111804. <https://doi.org/10.1016/j.exger.2022.111804>
25. Meng, F., Fleming, B. A., Jia, X., Rousek, A. A., Mulvey, M. A., & Ward, D. M. (2022). Lysosomal iron recycling in mouse macrophages is dependent upon both LcytB and Steap3 reductases. *Blood Advances*, 6(6), 1692–1707.  
<https://doi.org/10.1182/bloodadvances.2021005609>
26. Nicholson, R. J., Poss, A. M., Maschek, J. A., Cox, J. E., Hopkins, P. N., Hunt, S. C., Playdon, M. C., Holland, W. L., & Summers, S. A. (2021). Characterizing a Common CERS2 Polymorphism in a Mouse Model of Metabolic Disease and in Subjects from the Utah CAD Study. *The Journal of Clinical Endocrinology & Metabolism*, 106(8), e3098–e3109.  
<https://doi.org/10.1210/clinem/dgab155>
27. Nie, X., Munyoki, S. K., Sukhwani, M., Schmid, N., Missel, A., Emery, B. R., DonorConnect, Stukenborg, J.-B., Mayerhofer, A., Orwig, K. E., Aston, K. I., Hotaling, J. M., Cairns, B. R., & Guo, J. (2022). Single-cell analysis of human testis aging and correlation with elevated body mass index. *Developmental Cell*, 57(9), 1160–1176.e5.  
<https://doi.org/10.1016/j.devcel.2022.04.004>
28. Okada, M., Rajaram, K., Swift, R. P., Mixon, A., Maschek, J. A., Prigge, S. T., & Sigala, P. A. (2022). Critical role for isoprenoids in apicoplast biogenesis by malaria parasites. *eLife*, 11, e73208. <https://doi.org/10.7554/eLife.73208>
29. Ost, K. S., O'Meara, T. R., Stephens, W. Z., Chiaro, T., Zhou, H., Penman, J., Bell, R., Catanzaro, J. R., Song, D., Singh, S., Call, D. H., Hwang-Wong, E., Hanson, K. E., Valentine, J. F., Christensen, K. A., O'Connell, R. M., Cormack, B., Ibrahim, A. S., Palm, N. W., ... Round, J. L. (2021). Adaptive immunity induces mutualism between commensal



- eukaryotes. *Nature*, 596(7870), 114–118. <https://doi.org/10.1038/s41586-021-03722-w>
30. Øvrebø, J. I., Bradley-Gill, M.-R., Zielke, N., Kim, M., Marchetti, M., Bohlen, J., Lewis, M., van Straaten, M., Moon, N.-S., & Edgar, B. A. (2022). Translational control of E2f1 regulates the *Drosophila* cell cycle. *Proceedings of the National Academy of Sciences*, 119(4), e2113704119. <https://doi.org/10.1073/pnas.2113704119>
31. Petrocelli, J. J., Mahmassani, Z. S., Fix, D. K., Montgomery, J. A., Reidy, P. T., McKenzie, A. I., de Hart, N. M., Ferrara, P. J., Kelley, J. J., Eshima, H., Funai, K., & Drummond, M. J. (2021). Metformin and leucine increase satellite cells and collagen remodeling during disuse and recovery in aged muscle. *The FASEB Journal*, 35(9), e21862. <https://doi.org/10.1096/fj.202100883R>
32. Rheinemann, L., Downhour, D. M., Bredbenner, K., Mercenne, G., Davenport, K. A., Schmitt, P. T., Necessary, C. R., McCullough, J., Schmitt, A. P., Simon, S. M., Sundquist, W. I., & Elde, N. C. (2021). RetroCHMP3 blocks budding of enveloped viruses without blocking cytokinesis. *Cell*, 184(21), 5419–5431.e16. <https://doi.org/10.1016/j.cell.2021.09.008>
33. Tamamouna, V., Rahman, M. M., Petersson, M., Charalambous, I., Kux, K., Mainor, H., Bolender, V., Isbilir, B., Edgar, B. A., & Pitsouli, C. (2021). Remodelling of oxygen-transporting tracheoles drives intestinal regeneration and tumorigenesis in *Drosophila*. *Nature Cell Biology*, 23(5), Article 5. <https://doi.org/10.1038/s41556-021-00674-1>
34. Van Deren, D. A., De, S., Xu, B., Eschenbacher, K. M., Zhang, S., & Capecchi, M. R. (2022). Defining the Hoxb8 cell lineage during murine definitive hematopoiesis. *Development*, 149(8), dev200200. <https://doi.org/10.1242/dev.200200>
35. Wojtalewicz, S., Vizmeg, J., Erickson, S., Lade, C., Shea, J., Sant, H., Magda, J., Gale, B., Agarwal, J., & Davis, B. (2022). Evaluating the influence of particle morphology and density on the viscosity and injectability of a novel long-acting local anesthetic suspension. *Journal of Biomaterials Applications*, 8853282221106486. <https://doi.org/10.1177/08853282221106486>
36. Xue, Q., Varady, S. R. S., Waddell, T. Q. A., Carrington, J., & Roh-Johnson, M. (2022). *Focal adhesion-based cell migration is differentially regulated in vivo versus in vitro by Paxillin phosphorylation*. bioRxiv. <https://doi.org/10.1101/2022.03.02.482703>
37. Yang, G., Parker, E., Gorski, B., Liebowitz, M., Maguire, C., King, J. B., Coon, H., Lopez-Larson, M., Anderson, J., Yandell, M., & Shcheglovitov, A. (2022). *Neurite outgrowth deficits caused by rare PLXNB1 mutation in pediatric bipolar disorder* [Preprint]. Psychiatry and Clinical Psychology. <https://doi.org/10.1101/2022.05.06.22274499>
38. Zhang, P., Katzaroff, A. J., Buttitta, L. A., Ma, Y., Jiang, H., Nickerson, D. W., Øvrebø, J. I., & Edgar, B. A. (2021). The Krüppel-like factor Cabut has cell cycle regulatory properties similar to E2F1. *Proceedings of the National Academy of Sciences of the United States of America*, 118(7), e2015675118. <https://doi.org/10.1073/pnas.2015675118>
39. Zhao, H., Pomicter, A. D., Eiring, A. M., Franzini, A., Ahmann, J., Hwang, J.-Y., Senina, A., Helton, B., Iyer, S., Yan, D., Khorashad, J. S., Zabriskie, M. S., Agarwal, A., Redwine, H. M., Bowler, A. D., Clair, P. M., McWeeney, S. K., Druker, B. J., Tyner, J. W., ... Deininger, M. W. (2022). MS4A3 promotes differentiation in chronic myeloid leukemia by enhancing common  $\beta$ -chain cytokine receptor endocytosis. *Blood*, 139(5), 761–778. <https://doi.org/10.1182/blood.2021011802>





# 2021

July 2020 - June 2021

1. Ahmed, S. M. H., Maldera, J. A., Kronic, D., Paiva-Silva, G. O., Pénalva, C., Teleman, A. A., & Edgar, B. A. (2020). Fitness trade-offs incurred by ovary-to-gut steroid signalling in *Drosophila*. *Nature*, 584(7821), Article 7821. <https://doi.org/10.1038/s41586-020-2462-y>
2. Auer, T. O., Khallaf, M. A., Silbering, A. F., Zappia, G., Ellis, K., Álvarez-Ocaña, R., Arguello, J. R., Hansson, B. S., Jefferis, G. S. X. E., Caron, S. J. C., Knaden, M., & Benton, R. (2020). Olfactory receptor and circuit evolution promote host specialization. *Nature*, 579(7799), Article 7799. <https://doi.org/10.1038/s41586-020-2073-7>
3. Bell, L. A., Wallis, G. J., & Wilcox, K. S. (2020). Reactivity and increased proliferation of NG2 cells following central nervous system infection with Theiler's murine encephalomyelitis virus. *Journal of Neuroinflammation*, 17(1), 369. <https://doi.org/10.1186/s12974-020-02043-5>
4. Bhatlekar, S., Manne, B. K., Basak, I., Edelstein, L. C., Tugolukova, E., Stoller, M. L., Cody, M. J., Morley, S. C., Nagalla, S., Weyrich, A. S., Rowley, J. W., O'Connell, R. M., Rondina, M. T., Campbell, R. A., & Bray, P. F. (2020). miR-125a-5p regulates megakaryocyte proplatelet formation via the actin-bundling protein L-plastin. *Blood*, 136(15), 1760-1772. <https://doi.org/10.1182/blood.2020005230>
5. Bou-Ghannam, S., Kim, K., Grainger, D. W., & Okano, T. (2021). 3D cell sheet structure augments mesenchymal stem cell cytokine production. *Scientific Reports*, 11(1), Article 1. <https://doi.org/10.1038/s41598-021-87571-7>
6. Davis, B., Erickson, S., Wojtalewicz, S., Simpson, A., Metcalf, C., Sant, H., Shea, J., Gale, B., & Agarwal, J. (2020). Entrapping bupivacaine-loaded emulsions in a crosslinked-hydrogel increases anesthetic effect and duration in a rat sciatic nerve block model. *International Journal of Pharmaceutics*, 588, 119703. <https://doi.org/10.1016/j.ijpharm.2020.119703>
7. de Hart, N. M. M. P., Mahmassani, Z. S., Reidy, P. T., Kelley, J. J., McKenzie, A. I., Petrocelli, J. J., Bridge, M. J., Baird, L. M., Bastian, E. D., Ward, L. S., Howard, M. T., & Drummond, M. J. (2021). Acute Effects of Cheddar Cheese Consumption on Circulating Amino Acids and Human Skeletal Muscle. *Nutrients*, 13(2), Article 2. <https://doi.org/10.3390/nu13020614>
8. Derksen, A., Shih, H.-Y., Forget, D., Darbelli, L., Tran, L. T., Poitras, C., Guerrero, K., Tharun, S., Alkuraya, F. S., Kurdi, W. I., Nguyen, C.-T. E., Laberge, A.-M., Si, Y., Gauthier, M.-S., Bonkowski, J. L., Coulombe, B., & Bernard, G. (2021). Variants in LSM7 impair LSM complexes assembly, neurodevelopment in zebrafish and may be associated with an ultra-rare neurological disease. *Human Genetics and Genomics Advances*, 2(3), 100034. <https://doi.org/10.1016/j.xhgg.2021.100034>

9. Dong, Z. M., Lin, E., Wechsler, M. E., Weller, P. F., Klion, A. D., Bochner, B. S., Delker, D. A., Hazel, M. W., Fairfax, K., Khoury, P., Akuthota, P., Merkel, P. A., Dyer, A.-M., Langford, C., Specks, U., Gleich, G. J., Chinchilli, V. M., Raby, B., Yandell, M., & Clayton, F. (2020). Pulmonary Eosinophilic Granulomatosis with Polyangiitis Has IgG4 Plasma Cells and Immunoregulatory Features. *The American Journal of Pathology*, 190(7), 1438–1448.  
<https://doi.org/10.1016/j.ajpath.2020.03.005>
10. Ferrara, P. J., Rong, X., Maschek, J. A., Verkerke, A. R. P., Siripoksap, P., Song, H., Green, T. D., Krishnan, K. C., Johnson, J. M., Turk, J., Houmard, J. A., Lusi, A. J., Drummond, M. J., McClung, J. M., Cox, J. E., Shaikh, S. R., Tontonoz, P., Holland, W. L., & Funai, K. (2021). Lysophospholipid acylation modulates plasma membrane lipid organization and insulin sensitivity in skeletal muscle. *The Journal of Clinical Investigation*, 131(8).  
<https://doi.org/10.1172/JCI135963>
11. Ferrari, L. F., Pei, J., Zickella, M., Rey, C., Zickella, J., Ramirez, A., & Taylor, N. E. (2021). D2 Receptors in the Periaqueductal Gray/Dorsal Raphe Modulate Peripheral Inflammatory Hyperalgesia via the Rostral Ventral Medulla. *Neuroscience*, 463, 159–173.  
<https://doi.org/10.1016/j.neuroscience.2021.03.035>
12. Grow, E. J., Weaver, B. D., Smith, C. M., Guo, J., Stein, P., Shadle, S. C., Hendrickson, P. G., Johnson, N. E., Butterfield, R. J., Menafr, R., Kloet, S. L., van der Maarel, S. M., Williams, C. J., & Cairns, B. R. (2021). P53 convergently activates Dux/DUX4 in embryonic stem cells and in facioscapulohumeral muscular dystrophy cell models. *Nature Genetics*, 53(8), Article 8. <https://doi.org/10.1038/s41588-021-00893-0>
13. Guillen, K. P., Fujita, M., Butterfield, A. J., Scherer, S. D., Bailey, M. H., Chu, Z., DeRose, Y. S., Zhao, L., Cortes-Sanchez, E., Yang, C.-H., Toner, J., Wang, G., Qiao, Y., Huang, X., Greenland, J. A., Vahrenkamp, J. M., Lum, D. H., Factor, R. E., Nelson, E. W., ... Welm, A. L. (2021). A breast cancer patient-derived xenograft and organoid platform for drug discovery and precision oncology [Preprint]. *Cancer Biology*.  
<https://doi.org/10.1101/2021.02.28.433268>
14. Hoffman, L. M., Smith, M. A., Jensen, C. C., Yoshigi, M., Blankman, E., Ullman, K. S., & Beckerle, M. C. (2020). Mechanical stress triggers nuclear remodeling and the formation of transmembrane actin nuclear lines with associated nuclear pore complexes. *Molecular Biology of the Cell*, 31(16), 1774–1787. <https://doi.org/10.1091/mbc.E19-01-0027>
15. Keefe, M. D., Soderholm, H. E., Shih, H.-Y., Stevenson, T. J., Glaittli, K. A., Bowles, D. M., Scholl, E., Colby, S., Merchant, S., Hsu, E. W., & Bonkowsky, J. L. (2020). Vanishing white matter disease expression of truncated EIF2B5 activates induced stress response. *eLife*, 9, e56319. <https://doi.org/10.7554/eLife.56319>
16. *Neutralizing mitochondrial ROS does not rescue muscle atrophy induced by hindlimb unloading in female mice | Journal of Applied Physiology*. (n.d.). Retrieved September 22, 2022, from <https://journals.physiology.org/doi/full/10.1152/jappphysiol.00456.2019>
17. Pradeep, S., Tasnim, T., Zhang, H., & A. Zangle, T. (2021). Simultaneous measurement of neurite and neural body mass accumulation via quantitative phase imaging. *Analyst*, 146(4), 1361–1368. <https://doi.org/10.1039/D0AN01961E>
18. Sejlting, A.-S., Wang, P., Zhu, W., Farhat, R., Knight, N., Appadurai, D., & Chan, O. (2021). Repeated Activation of Noradrenergic Receptors in the Ventromedial Hypothalamus Suppresses the Response to Hypoglycemia. *Endocrinology*, 162(3), bqaa241.

<https://doi.org/10.1210/endocr/bqaa241>

19. Wang, Y., Chiola, S., Yang, G., Russell, C., Armstrong, C. J., Wu, Y., Spampinato, J., Tarboton, P., Chang, A. N., Harmin, D. A., Vezzoli, E., Besusso, D., Cui, J., Cattaneo, E., Kubanek, J., & Shcheglovitov, A. (2021). *Modeling autism-associated SHANK3 deficiency using human cortico-striatal organoids generated from single neural rosettes*[Preprint]. Neuroscience. <https://doi.org/10.1101/2021.01.25.428022>

# 2020

July 2019 - June 2020

1. Deshpande, I., Liang, J., Hedeem, D., Roberts, K. J., Zhang, Y., Ha, B., Latorraca, N. R., Faust, B., Dror, R. O., Beachy, P. A., Myers, B. R., & Manglik, A. (2019). Smoothened stimulation by membrane sterols drives Hedgehog pathway activity. *Nature*, 571(7764), Article 7764. <https://doi.org/10.1038/s41586-019-1355-4>
2. Dong, Z. M., Lin, E., Wechsler, M. E., Weller, P. F., Klion, A. D., Bochner, B. S., Delker, D. A., Hazel, M. W., Fairfax, K., Khoury, P., Akuthota, P., Merkel, P. A., Dyer, A.-M., Langford, C., Specks, U., Gleich, G. J., Chinchilli, V. M., Raby, B., Yandell, M., & Clayton, F. (2020). Pulmonary Eosinophilic Granulomatosis with Polyangiitis Has IgG4 Plasma Cells and Immunoregulatory Features. *The American Journal of Pathology*, 190(7), 1438–1448. <https://doi.org/10.1016/j.ajpath.2020.03.005>
3. Feng, H., Hockin, M., Zhang, S., Capeocchi, M., Gale, B., & Sant, H. (2020). Enhanced chromosome extraction from cells using a pinched flow microfluidic device. *Biomedical Microdevices*, 22(2), 25. <https://doi.org/10.1007/s10544-020-0477-7>
4. Feng, H., Magda, J. J., & Gale, B. K. (2019). Viscoelastic second normal stress difference dominated multiple-stream particle focusing in microfluidic channels. *Applied Physics Letters*, 115(26), 263702. <https://doi.org/10.1063/1.5129281>
5. Gandelman, M., Dansithong, W., Figueroa, K. P., Paul, S., Scoles, D. R., & Pulst, S. M. (2020). Staufen 1 amplifies proapoptotic activation of the unfolded protein response. *Cell Death & Differentiation*, 27(10), Article 10. <https://doi.org/10.1038/s41418-020-0553-9>
6. Hanak, T. J., Libbey, J. E., Doty, D. J., Sim, J. T., DePaula-Silva, A. B., & Fujinami, R. S. (2019). Positive Modulation of mGluR5 Attenuates Seizures and Reduces TNF- $\alpha$ + Macrophages and Microglia in the Brain in a Murine Model of Virus-Induced Temporal Lobe Epilepsy. *Experimental Neurology*, 311, 194–204. <https://doi.org/10.1016/j.expneurol.2018.10.006>
7. Hoffman, L. M., Smith, M. A., Jensen, C. C., Yoshigi, M., Blankman, E., Ullman, K. S., & Beckerle, M. C. (2020). Mechanical stress triggers nuclear remodeling and the formation of transmembrane actin nuclear lines with associated nuclear pore complexes. *Molecular Biology of the Cell*, 31(16), 1774–1787. <https://doi.org/10.1091/mbc.E19-01-0027>
8. Kim, H.-S., Neugebauer, J., McKnite, A., Tilak, A., & Christian, J. L. (n.d.). BMP7 functions predominantly as a heterodimer with BMP2 or BMP4 during mammalian embryogenesis. *eLife*, 8, e48872. <https://doi.org/10.7554/eLife.48872>
9. Kircher, D. A., Trombetti, K. A., Silvis, M. R., Parkman, G. L., Fischer, G. M., Angel, S. N., Stehn, C. M., Strain, S. C., Grossmann, A. H., Duffy, K. L., Boucher, K. M., McMahon, M.,

- Davies, M. A., Mendoza, M. C., VanBrocklin, M. W., & Holmen, S. L. (2019). AKT1E17K Activates Focal Adhesion Kinase and Promotes Melanoma Brain Metastasis. *Molecular Cancer Research: MCR*, 17(9), 1787–1800. <https://doi.org/10.1158/1541-7786.MCR-18-1372>
10. Lim, K., Sima, M., Stewart, R. J., & Minter, S. D. (2020). Direct bioelectrocatalysis by redox enzymes immobilized in electrostatically condensed oppositely charged polyelectrolyte electrode coatings. *Analyst*, 145(4), 1250–1257. <https://doi.org/10.1039/C9AN02168J>
  11. Mahmassani, Z. S., Reidy, P. T., McKenzie, A. I., Petrocelli, J. J., Matthews, O., de Hart, N. M., Ferrara, P. J., O'Connell, R., Funai, K., & Drummond, M. J. (2020). Absence of MyD88 from skeletal muscle protects female mice from inactivity-induced adiposity and insulin resistance. *Obesity (Silver Spring, Md.)*, 28(4), 772–782. <https://doi.org/10.1002/oby.22759>
  12. McKenzie, A. I., Reidy, P. T., Nelson, D. S., Mulvey, J. L., Yonemura, N. M., Petrocelli, J. J., Mahmassani, Z. S., Tippetts, T. S., Summers, S. A., Funai, K., & Drummond, M. J. (2020). Pharmacological inhibition of TLR4 ameliorates muscle and liver ceramide content after disuse in previously physically active mice. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, 318(3), R503–R511. <https://doi.org/10.1152/ajpregu.00330.2019>
  13. Okada, M., Guo, P., Nalder, S., & Sigala, P. A. (2020). Doxycycline has distinct apicoplast-specific mechanisms of antimalarial activity. *eLife*, 9, e60246. <https://doi.org/10.7554/eLife.60246>
  14. Reidy, P. T., Yonemura, N., Madsen, J. H., McKenzie, A. I., Mahmassani, Z. S., Rondina, M. T., Lin, Y. K., Kaput, K., & Drummond, M. J. (2019). An accumulation of muscle macrophages is accompanied by altered insulin sensitivity after reduced-activity and recovery. *Acta Physiologica (Oxford, England)*, 226(2), e13251. <https://doi.org/10.1111/apha.13251>

# 2019

July 2018 - June 2019

1. Reidy, P. T., McKenzie, A. I., Mahmassani, Z. S., Petrocelli, J. J., Nelson, D. B., Lindsay, C. C., Gardner, J. E., Morrow, V. R., Keefe, A. C., Huffaker, T. B., Stoddard, G. J., Kardon, G., O'Connell, R. M., & Drummond, M. J. (2019). Aging impairs mouse skeletal muscle macrophage polarization and muscle-specific abundance during recovery from disuse. *American Journal of Physiology-Endocrinology and Metabolism*, 317(1), E85-E98.  
<https://doi.org/10.1152/ajpendo.00422.2018>
2. Samson, S. C., Elliott, A., Mueller, B. D., Kim, Y., Carney, K. R., Bergman, J. P., Blenis, J., & Mendoza, M. C. (2019). P90 ribosomal S6 kinase (RSK) phosphorylates myosin phosphatase and thereby controls edge dynamics during cell migration. *Journal of Biological Chemistry*, 294(28), 10846-10862. <https://doi.org/10.1074/jbc.RA119.007431>
3. Yoo, J. H., Brady, S. W., Acosta-Alvarez, L., Rogers, A., Peng, J., Sorensen, L. K., Wolff, R. K., Mleynek, T., Shin, D., Rich, C. P., Kircher, D. A., Bild, A., Odelberg, S. J., Li, D. Y., Holmen, S. L., & Grossmann, A. H. (2019). The Small GTPase ARF6 Activates PI3K in Melanoma to Induce a Prometastatic State. *Cancer Research*, 79(11), 2892-2908.  
<https://doi.org/10.1158/0008-5472.CAN-18-3026>
4. Zhang, P., Holowatyj, A. N., Roy, T., Pronovost, S. M., Marchetti, M., Liu, H., Ulrich, C. M., & Edgar, B. A. (2019). An SH3PX1-Dependent Endocytosis-Autophagy Network Restrains Intestinal Stem Cell Proliferation by Counteracting EGFR-ERK Signaling. *Developmental Cell*, 49(4), 574-589.e5. <https://doi.org/10.1016/j.devcel.2019.03.029>

# 2018

July 2017 - June 2018

1. Abdul-Wajid, S., Demarest, B. L., & Yost, H. J. (2018). Loss of embryonic neural crest derived cardiomyocytes causes adult onset hypertrophic cardiomyopathy in zebrafish. *Nature Communications*, 9(1), Article 1. <https://doi.org/10.1038/s41467-018-07054-8>
2. Chavez, D. R., Snow, A. K., Smith, J. R., & Stanfield, G. M. (2018). Soma-germ line interactions and a role for muscle in the regulation of *C. elegans* sperm motility. *Development*, 145(24), dev167734. <https://doi.org/10.1242/dev.167734>
3. Klatt Shaw, D., Gunther, D., Juryneć, M. J., Chagovetz, A. A., Ritchie, E., & Grunwald, D. J. (2018). Intracellular Calcium Mobilization Is Required for Sonic Hedgehog Signaling. *Developmental Cell*, 45(4), 512-525.e5. <https://doi.org/10.1016/j.devcel.2018.04.013>
4. Mimche, P. N., Lee, C. M., Mimche, S. M., Thapa, M., Grakoui, A., Henkemeyer, M., & Lamb, T. J. (2018). EphB2 receptor tyrosine kinase promotes hepatic fibrogenesis in mice via activation of hepatic stellate cells. *Scientific Reports*, 8(1), Article 1. <https://doi.org/10.1038/s41598-018-20926-9>
5. Reidy, P. T., McKenzie, A. I., Mahmassani, Z., Morrow, V. R., Yonemura, N. M., Hopkins, P. N., Marcus, R. L., Rondina, M. T., Lin, Y. K., & Drummond, M. J. (2018). Skeletal muscle ceramides and relationship with insulin sensitivity after 2 weeks of simulated sedentary behaviour and recovery in healthy older adults. *The Journal of Physiology*, 596(21), 5217-5236. <https://doi.org/10.1113/jp276798>
6. Sefton, E. M., Gallardo, M., & Kardon, G. (2018). Developmental origin and morphogenesis of the diaphragm, an essential mammalian muscle. *Developmental Biology*, 440(2), 64-73. <https://doi.org/10.1016/j.ydbio.2018.04.010>
7. Zitnay, J. L., Reese, S. P., Tran, G., Farhang, N., Bowles, R. D., & Weiss, J. A. (2018). Fabrication of dense anisotropic collagen scaffolds using biaxial compression. *Acta Biomaterialia*, 65, 76-87. <https://doi.org/10.1016/j.actbio.2017.11.017>
8. Zitnay, J. L., & Weiss, J. A. (2018). Load transfer, damage, and failure in ligaments and tendons. *Journal of Orthopaedic Research*, 36(12), 3093-3104. <https://doi.org/10.1002/jor.24134>