2025-2026 FTC Research Consortium Publications

1. A highly resolved integrated single-cell atlas of HPV-negative head and neck cancer. Kroehling L, Chen A, Spinella A, Reed E, Kukuruzinska M, **Varelas X, Monti S.** Commun Med (Lond). 2026 Mar 11;6(1):138. doi: 10.1038/s43856-026-01401-3. PMID: 41813916
2. LATS1/2 inactivation in the mammary epithelium drives the evolution of a tumor-associated niche. Kern JG, Kroehling L, Spinella AJ, **Monti S, Varelas** X. EMBO Rep. 2025 Mar;26(6):1472-1503. doi: 10.1038/s44319-025-00370-3. Epub 2025 Feb 14. PMID: 39953252
3. Parrish M, Seraj M, Nikoueian H, Traugh N, Chen A, Gupta PB, **Monti S, Kuperwasser C**. Environmental chemical mixtures reprogram mammary epithelial development to epigenetic states associated with breast cancer (under review *PNAS*); bioRxiv 2026.04.01.715968; doi: https://doi.org/10.64898/2026.04.01.715968
4. **Parrish M, Kuperwasser C**. Environmental endocrine disruptors: rethinking the origins of early-onset ER^+ breast cancer. *Nat Rev Cancer*. 2025 Nov;25(11):819-820. doi: 10.1038/s41568-025-00854-3. PMID: 40696034.
5. Traugh N, Trepicchio C, Rauner G, **Parrish M, Kuperwasser C**. Immune-Epithelial Interactions via TGF-β Orchestrates Stem-Cell Niche Formation and Morphogenesis (under review *Development*) bioRxiv 2025.05.22.655596; doi: https://doi.org/10.1101/2025.05.22.655596
6. **Parrish M, Traugh N, Seraj M, Kuperwasser C.** Field cancerization, accelerated aging, and immunosuppression: the rapid rise of hormone-sensitive and early-onset breast cancer. *NPJ Breast Cancer.* 2025 Nov 18;11(1):128. doi: 10.1038/s41523-025-00840-w. PMID: 41253840; PMCID: PMC12627641.
7. Rauner G, Traugh NC, Trepicchio CJ, Parrish ME, Mushayandebvu K, **Kuperwasser C**. Single-cell organogenesis captures complex breast tissue formation in three dimensions. *Development*. 2025 Oct 15;152(20):dev204813. doi: 10.1242/dev.204813. Epub 9/8/25
8. Trepicchio C, Rauner G, Traugh N, Wang R, Parrish M, Fein DEC, Mal Y, Gupta PB, **Monti S, Kuperwasser C**. DDR1 regulates RUNX1-CBFβ to control breast stem cell differentiation. *Stem Cell Reports*. 2025 Aug 12;20(8):102576. doi: 10.1016/j.stemcr.2025.102576. Epub 2025 Jul 3. PMID: 40614729; PMCID: PMC12365826.
9. **Ubellacker JM**, Dixon SJ. Prospects for ferroptosis therapies in cancer. Nat Cancer. 2025 Aug;6(8):1326-1336. doi: 10.1038/s43018-025-01037-7. Epub 2025 Aug 18. PMID: 40826242; PMCID: PMC13066655.
10. Sabatier M, Kaur M, Chaufan M, Hormann FL, Melo LMN, Palma M, Torpey J, Liang Y, Carmona A, Fraser C, Flores M, Szylo KJ, Yavari M, Hui S, Tasdogan A, Heiles S, **Ubellacker JM**. GPX4 Inhibitor Resistance and Metastatic Features in Triple-Negative Breast Cancer. Adv Sci (Weinh). 2026 Feb 17:e23198. doi: 10.1002/advs.202523198. Epub ahead of print. PMID: 41704007.
11. Yavari M, Brantley KD, Carmona A, Sabatier M, Liang Y, Monge-Lorenzo J, Torpey J, Szylo KJ, Flores M, Palma M, Fraser CS, Chaufan M, Kaur M, Hendrianto L, Henry W, Hui ST, Rodriguez R, Willett WC, Avila-Pacheco J, Clish CB, Eliassen AH, Zeleznik OA, **Ubellacker J**. Plasma plasmalogen levels and risk of lymph node positive breast

cancer. bioRxiv [Preprint]. 2025 Dec 15:2025.12.11.693510. doi: 10.64898/2025.12.11.693510. PMID: 41446216; PMCID: PMC12724421.

12. Snyder M, Wang Z, Lara B, Fimbres J, Pichardo T, Mazzilli S, **Khan MM**, Duggineni VK, **Monti S**, **Sherr DH** (2025). *The Aryl Hydrocarbon Receptor Controls IFNg-Induced Immune Checkpoints PD-L1 and IDO via the JAK/STAT Pathway in Lung Adenocarcinoma*. Journal of Immunology 214(3):413-432. PMID: 40073102. PMCID: PMC12213245
13. Kern J, **Kroheling L**, Spinella AJ, **Monti S**, Varelas X (2025). *Hippo pathway Inactivation in the Mammary Epithelium Drives the Evolution of a Tumor-Associated Niche*. Embo Reports 26(6):1472-1503. PMID: 39953252. PMCID: PMC11933708
14. Llevenes P, **Chen A**, Lawton M, Qiu Y, Seen M, **Monti S**, Denis G. *Plasma Exosomes in Insulin Resistant Obesity Exacerbate Progression of Triple Negative Breast Cancer*. Molecular Cancer Research 25(1):1089. PMID: 40629272. PMCID: PMC12239313.
15. Qiu Y, **Chen A**, Yu R, Llevenes P, Seen M, Ko N, **Monti S**, Denis GV (2025). *Insulin Resistance Increases TNBC Aggressiveness and Brain Metastasis via Adipocyte-derived Exosomes*. Molecular Cancer Research 23(6):567-578. PMID: 40047645. PMCID: PMC12133429.
16. Li W, Nishino M, **Reed E**, Akshinthala D, Pasha HA, Anderson ES, Huang L, Hebestreit H, **Monti S**, Gomez ED, Jalisi SM, Muthuswamy SK (2025). *Head and neck tumor organoid grown under simplified media conditions model tumor biology and chemoradiation responses*. Scientific Reports 5(1):24221. PMID: 40624315. PMCID: PMC12234821.
17. Song Z, Gunn S, **Monti S**, Peloso GM, Liu C, Lunetta K, Sebastiani P (2025). *Learning Gaussian Graphical Models from Correlated Data*. Frontiers in Systems Biology 5:1589079. PMID: 38617340. PMCID: PMC11014549.
18. Trepicchio C, Rauner G, Traugh N, **Hang R**, Parrish M, Fein DEC, Mal Y, **Monti S**, Kuperwasser C (2025). *DDR1 regulates RUNX1-CBFβ to control breast stem cell differentiation*. Stem Cell Reports 20:102576. PMID: 40614729**.**
19. Chakraborty AK, **Kroehling L**, Raut RD, Choudhury C, Kukuruzinska M, Gutkind JS, Varelas X, Sahay B, **Monti S**, Bais MV (2025). *LSD1 inhibition corrects dysregulated MHC-I and dendritic cells activation through IFNγ-CXCL9-CXCR3 axis to promote antitumor immunity in HNSCC*. Cancer Research (In press). PMID: 40166238. PMCID: PMC11956948.
20. Ennis C, Seen M, **Chen A**, Kang H, Illinski A, Mahdaviani K, Ko N, **Monti S**, Denis G (2025). *Plasma exosomes from individuals with type 2 diabetes drive breast cancer aggression in patient-derived organoids*. Communications Biology **8**(1):1276. PMID: 40858992.
21. **Li M**, Song Z, Reed E, Karagiannis T, Andersen SL, Brent M, Mateusiak C, Acharya S, Jung WS, Liao S, Wojczynski MK, Feitosa MF, O'Connell JR, Montasser ME, Thorpe RJ, Arbeev K, Milman S, Tai A, Perls TT, Sebastiani P†, **Monti S**† (2025). *Whole blood transcriptional signatures of age and survival identified in Long Life Family and Integrative Longevity Omics Studies*. GeroScience (In press). PMID: 41723297.
22. Sebastiani P, Reed E, Chandler KB, Lopez P, Lords H, Bae H, Costello CE, Au M, Deng LL, Li M, Xiang Q, Noh H, Pflieger L, Funk C, Rappaport N, Nygaard M, Short MI, Brent M, **Monti S**, Andersen SL, Perls TT (2025). *A Robust Serum Proteomic Signature*

of the E2 Allele of Apolipoprotein E. Advanced Science, e09764. https://doi.org/10.1002/advs.202509764. PMID: 41316897.

23. **Shastry A**[*], Hiller BE[*], Sanders NL, Tseng AE, Kothari J, O'Connell AK, Gertje HP, Ha CT, Murzin E, Traber KE, Lederer JA, Jones MR, Douam F, Beach TG, Remick DG, Crossland NA, **Monti S**, Campbell JD, Mizgerd JP (2026). *Sub-phenotypes of pneumonia defined by pulmonary histopathological features*. American Journal of Respiratory and Critical Care Medicine (In press).
24. **Chen A**, **Kroheling L**, Ennis C, Denis G, **Monti S**. *A highly resolved integrated single cell atlas of human breast cancers*. NAR Genomics and Bioinformatics **8**(1): lqaf217. https://doi.org/10.1093/nargab/lqaf217. PMID: 41640877. PMCID: PMC12867518.
25. **Kroheling L**, **Chen A**, Spinella AJ, Reed E, Kukuruzinka M, Varelas X, **Monti S**. *A highly resolved integrated single-cell atlas of HPV-negative head and neck cancer*. Communications Medicine **6**(1):138. DOI: 10.1038/s43856-026-01401-3. PMID: 41813916. PMCID: PMC12979816.
26. **Monti S**[†], Lustgarten M, **Huang Z**, Song Z, **Li M**, Ellis D, Tian Q, Ferrucci L, Rappaport N, Andersen SL, Perls T, Sebastiani P (2025). *Metabolomic Signatures of Extreme Old Age: Findings from the New England Centenarian Study*. GeroScience (In press). DOI: 10.1007/s11357-026-02174-2. PMID: 41888502.