



Scott Dixon

Professor of Biology

Bio

BIO

As a graduate student and short-term postdoctoral fellow at the University of Toronto I studied genetic networks that regulate cell viability in the nematode worm *Caenorhabditis elegans* (*C. elegans*) and in the single-celled eukaryotes *S. cerevisiae* and *S. pombe*, respectively. As a postdoctoral fellow, I demonstrated that the small molecule erastin inhibits the membrane cystine/glutamate transporter system xc⁻, depletes the cell of glutathione and activates a novel iron-dependent, oxidative cell death pathway termed ferroptosis. Currently a major goal of my lab is to understand the interaction between intracellular metabolism and cell death. Our research program integrates techniques and model systems including small molecule and proteomic screening, biochemical analysis of protein function and model organism genetics.

ACADEMIC APPOINTMENTS

- Professor, Biology
- Member, Bio-X
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- B.Sc., Laurentian University , Behavioral Neuroscience (2000)
- Ph.D., University of Toronto , Molecular and Medical Genetics (2007)

LINKS

- My Lab Website: <http://www.dixonlaboratory.com/#dixonlab>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My lab is interested in the relationship between cell death and metabolism. Using techniques drawn from many disciplines my laboratory is investigating how perturbation of intracellular metabolic networks can result in novel forms of cell death, such as ferroptosis. We are interested in applying this knowledge to find new ways to treat diseases characterized by insufficient (e.g. cancer) or excessive (e.g. neurodegeneration) cell death.

Teaching

COURSES

2025-26

- Chemical Biology: BIO 173 (Win)
- Exploring Mammalian Cell Biology Using AI: BIO 163 (Win)
- Metabolism and Metabolic Techniques in Research: BIOS 446 (Spr)

2024-25

- Biology PhD Lab Rotation: BIO 299 (Aut, Spr)

2023-24

- Biochemistry & Molecular Biology: BIO 83 (Aut)
- Biology PhD Lab Rotation: BIO 299 (Aut, Win, Spr)
- Chemical Biology: BIO 173 (Spr)

2022-23

- Biochemistry & Molecular Biology: BIO 83 (Aut)
- Biology PhD Lab Rotation: BIO 299 (Win, Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Luis Hernandez, Hye Won Kim, Pre Lavania, Michelle Lee, Steven Massa, Austin Murchison, Andrew Reiter, Sam Scharenberg, Sean Waterton, Xiaochen Xiong

Postdoctoral Faculty Sponsor

Judith Goncalves, Patrick Sutton

Doctoral Dissertation Advisor (AC)

Nicole Haseley, Alby Joseph, Weaverly Colleen Lee, Sophia Manukian, Magdalena Murray, Krystina Szylo

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)
- Cancer Biology (Phd Program)

Publications

PUBLICATIONS

- **Methionine metabolism is linked with phospholipid and glutamine metabolism to drive ferroptosis.** *Cell reports*
Kim, J. W., Jang, S. Y., Roh, Y. J., Ju, Y., Kang, J. B., Park, B. S., Lee, J. Y., Kim, M. W., Jeong, B. J., Jung, W., Oh, K. J., Kim, W. K., Han, et al
2026; 45 (4): 117157
- **Fin(e)-tuning ferroptosis.** *Molecular cell*
Szylo, K. J., Dixon, S. J.
2026; 86 (2): 234-236
- **Dual targeting of BRAFV600E and ferroptosis results in synergistic anticancer activity via iron overload and enhanced oxidative stress.** *Journal of experimental & clinical cancer research : CR*
Hu, J., Ghosh, C., Khaket, T. P., Yang, Z., Tabdili, Y., Alamaw, E. D., Boufraquech, M., Dixon, S. J., Kebebew, E.

2026

- **BMP signaling modulates apoptotic and non-apoptotic cell death in glioblastoma**
Lee, W., Salinas, J., Gautam, A., Nathanson, D., Dixon, S.
OXFORD UNIV PRESS INC.2025: v178
- **Cell size modulates ferroptosis susceptibility.** *bioRxiv : the preprint server for biology*
Zatulovskiy, E., Murray, M. B., Zhang, S., Dixon, S. J., Skotheim, J. M.
2025
- **FTO inhibition attenuates renal fibrosis by downregulating ferroptosis activator ACSL4 and profibrotic factor TGFBI.** *iScience*
Zhang, D., Chiu, C. L., Wen, R., Qiu, Z., Garcia-Marques, F., Bermudez, A., Zhao, M., Zhao, H., Dixon, S. J., Peehl, D. M., Rankin, E. B., Pitteri, S., Brooks, et al
2025; 28 (10): 113515
- **Therapeutic targeting of the nuclear pore complex with molecular glue degraders in pancreatic cancer**
Yuan, L., Ji, W., Dwyer, B. G., Lu, J., Bian, J., Colombo, G. M., Martinez, M. J., Fernandez, D., Phillips, N. A., Tang, M. T., Zhou, C. W., Jones, H. M., Calla, et al
AMER ASSOC CANCER RESEARCH.2025
- **A guide to using small-molecule ferroptosis inhibitors.** *Nature structural & molecular biology*
Pratt, D. A., Dixon, S. J.
2025
- **FTO inhibition attenuates renal fibrosis by downregulating ferroptosis activator ACSL4 and profibrotic factor TGFBI** *ISCIENCE*
Zhang, D., Chiu, C., Wen, R., Qiu, Z., Garcia-Marques, F., Bermudez, A., Zhao, M., Zhao, H., Dixon, S. J., Peehl, D. M., Rankin, E. B., Pitteri, S., Brooks, et al
2025; 28 (10)
- **Functional Dissection of the zDHHC Palmitoyltransferase 5-Golgin A7 Palmitoylation Complex.** *The Journal of biological chemistry*
Kahlson, M. A., Ritho, J., Gomes, J. V., Wang, H., Butterwick, J. A., Dixon, S. J.
2025: 110694
- **Lipid Composition Alters Ferroptosis Sensitivity.** *Cancer research*
Park, V. S., Pope, L. E., Ingram, J. P., Alchemy, G. A., Purkal, J. J., Murray, M. B., Jin, S., Andino-Frydman, E. Y., Singh, S., Chen, A., Narayanan, P., Kongpachith, S., Phillips, et al
2025
- **Defining the antitumor mechanism of action of a clinical-stage compound as a selective degrader of the nuclear pore complex.** *Cancer discovery*
Yuan, L., Ji, W., Dwyer, B. G., Lu, J., Bian, J., Colombo, G. M., Martinez, M. J., Fernandez, D., Phillips, N. A., Tang, M. T., Zhou, C. W., Quispe Calla, N. E., Guzman Huancas, et al
2025
- **Prospects for ferroptosis therapies in cancer.** *Nature cancer*
Ubellacker, J. M., Dixon, S. J.
2025
- **Cell State-Driven Metabolic Dependency in Small Cell Lung Cancer**
Kim, J. W., Bebbler, C. M., Dai, Y., Bopp, S., Edenhofer, A., Li, A. M., Drainas, A. P., Rosner, T., Berning, L., Yang, M., Leak, L. B., Shrestha, B., Abdallah, et al
ELSEVIER SCIENCE INC.2025
- **A global genetic interaction map of a human cell reveals conserved principles of genetic networks.** *bioRxiv : the preprint server for biology*
Billmann, M., Costanzo, M., Zhang, X., Hassan, A. Z., Rahman, M., Brown, K. R., Chan, K. S., Tong, A. H., Pons, C., Ward, H. N., Ross, C., van Leeuwen, J., Aregger, et al
2025
- **Tegavivint triggers TECR-dependent nonapoptotic cancer cell death.** *Nature chemical biology*
Leak, L., Wang, Z., Joseph, A. J., Johnson, B., Chan, A. A., Decosto, C. M., Magtanong, L., Ko, P. J., Lee, W. C., Ritho, J., Manukian, S., Millner, A., Chitkara, et al

2025

- **Recommendations for robust and reproducible research on ferroptosis.** *Nature reviews. Molecular cell biology*
Mishima, E., Nakamura, T., Doll, S., Proneth, B., Fedorova, M., Pratt, D. A., Friedmann Angeli, J. P., Dixon, S. J., Wahida, A., Conrad, M.
2025
- **Mechanisms of ferroptosis sensitization and resistance.** *Developmental cell*
Lee, W. C., Dixon, S. J.
2025; 60 (7): 982-993
- **A clinical drug candidate that triggers non-apoptotic cancer cell death.** *Research square*
Dixon, S., Leak, L., Wang, Z., Lee, W. C., Johnson, B., Millner, A., Ko, P. J., Decosto, C., Magtanong, L., Ritho, J., Skouta, R., Atilla-Gokcumen, E., Myers, et al
2025
- **Monitoring of cancer ferroptosis with [18F]hGTS13, a system xc- specific radiotracer.** *Theranostics*
Moses, A., Malek, R., Kendirli, M. T., Cheung, P., Landry, M., Herrera-Barrera, M., Khojasteh, A., Granucci, M., Bukhari, S. A., Hooper, J. E., Hayden-Gephart, M., Dixon, S. J., Recht, et al
2025; 15 (3): 836-849
- **Integrated molecular and functional characterization of the intrinsic apoptotic machinery identifies therapeutic vulnerabilities in glioma.** *Nature communications*
Fernandez, E. G., Mai, W. X., Song, K., Bayley, N. A., Kim, J., Zhu, H., Pioso, M., Young, P., Andrasz, C. L., Cadet, D., Liau, L. M., Li, G., Yong, et al
2024; 15 (1): 10089
- **TARGETING LIPID MEDIATED NON-CANONICAL CELL DEATH IN MALIGNANT GLIOMA**
Salinas, J., Cadet, D., Smolev, S., Iyer, D., Loo, C., Lee, W., Dixon, S., Nathanson, D.
OXFORD UNIV PRESS INC.2024
- **BMP SIGNALING MODULATES APOPTOTIC AND NON-APOPTOTIC CELL DEATH IN GLIOBLASTOMA**
Lee, W., Salinas, J., Nathanson, D., Dixon, S.
OXFORD UNIV PRESS INC.2024
- **Waves of ferroptotic cell death sculpt embryonic tissue** *NATURE*
Goncalves, J., Dixon, S. J.
2024; 631 (8021): 510-512
- **Ferroptosis regulation by Cap'n'collar family transcription factors.** *The Journal of biological chemistry*
Murray, M. B., Dixon, S. J.
2024: 107583
- **Role of ferroptosis in radiation-induced soft tissue injury.** *Cell death discovery*
Berry, C. E., Kendig, C. B., An, N., Fazilat, A. Z., Churukian, A. A., Griffin, M., Pan, P. M., Longaker, M. T., Dixon, S. J., Wan, D. C.
2024; 10 (1): 313
- **Ferroptosis in health and disease.** *Redox biology*
Berndt, C., Alborzinia, H., Amen, V. S., Ayton, S., Barayeu, U., Bartelt, A., Bayir, H., Bebbler, C. M., Birsoy, K., Böttcher, J. P., Brabletz, S., Brabletz, T., Brown, et al
2024; 75: 103211
- **Ferroptosis Inhibition with Deferoxamine Alleviates Radiation-Induced Fibrosis.** *Research square*
Berry, C. E., Kendig, C., Bs, T. L., Brenac, C., Griffin, M., Guo, J., Kameni, L., Dixon, S. J., Longaker, M. T., Wan, D.
2024
- **The cell biology of ferroptosis.** *Nature reviews. Molecular cell biology*
Dixon, S. J., Olzmann, J. A.
2024
- **Epigenetic Regulation of Ferroptosis in the Liver.** *Research (Washington, D.C.)*
Dixon, S. J.
2024; 7: 0323

- **Quick tips for interpreting cell death experiments.** *Nature cell biology*
Dixon, S. J., Lee, M. J.
2023
- **Lipid Quality Control and Ferroptosis: From Concept to Mechanism.** *Annual review of biochemistry*
Li, Z., Lange, M., Dixon, S. J., Olzmann, J. A.
2023
- **Sensitization of cancer cells to ferroptosis coincident with cell cycle arrest.** *Cell chemical biology*
Rodencal, J., Kim, N., He, A., Li, V. L., Lange, M., He, J., Tarangelo, A., Schafer, Z. T., Olzmann, J. A., Long, J. Z., Sage, J., Dixon, S. J.
2023
- **CDKN2A DELETION REMODELS LIPID METABOLISM TO PRIME GLIOBLASTOMA FOR FERROPTOSIS**
Minami, J., Morrow, D., Bayley, N., Fernandez, E., Salinas, J., Tse, C., Zhu, H., Su, B., Sammarco, A., Liau, L., Graeber, T., Williams, K., Cloughesy, et al
OXFORD UNIV PRESS INC.2023
- **Death-seq identifies regulators of cell death and senolytic therapies.** *Cell metabolism*
Colville, A., Liu, J. Y., Rodriguez-Mateo, C., Thomas, S., Ishak, H. D., Zhou, R., Klein, J. D., Morgens, D. W., Goshayeshi, A., Salvi, J. S., Yao, D., Spees, K., Dixon, et al
2023
- **Author Correction: Lipid droplets and peroxisomes are co-regulated to drive lifespan extension in response to mono-unsaturated fatty acids.** *Nature cell biology*
Papsdorf, K., Miklas, J. W., Hosseini, A., Cabruja, M., Morrow, C. S., Savini, M., Yu, Y., Silva-García, C. G., Haseley, N. R., Murphy, L. M., Yao, P., de Launoit, E., Dixon, et al
2023
- **Protocol for detection of ferroptosis in cultured cells.** *STAR protocols*
Murray, M. B., Leak, L. B., Lee, W. C., Dixon, S. J.
2023; 4 (3): 102457
- **A Cell Cycle-Dependent Ferroptosis Sensitivity Switch Governed by EMP2.** *bioRxiv : the preprint server for biology*
Rodencal, J., Kim, N., Li, V. L., He, A., Lange, M., He, J., Tarangelo, A., Schafer, Z. T., Olzmann, J. A., Sage, J., Long, J. Z., Dixon, S. J.
2023
- **Regulation of ferroptosis by lipid metabolism.** *Trends in cell biology*
Pope, L. E., Dixon, S. J.
2023
- **CDKN2A deletion remodels lipid metabolism to prime glioblastoma for ferroptosis.** *Cancer cell*
Minami, J. K., Morrow, D., Bayley, N. A., Fernandez, E. G., Salinas, J. J., Tse, C., Zhu, H., Su, B., Plawat, R., Jones, A., Sammarco, A., Liau, L. M., Graeber, et al
2023
- **Identification of structurally diverse FSP1 inhibitors that sensitize cancer cells to ferroptosis.** *Cell chemical biology*
Hendricks, J. M., Doubravsky, C. E., Wehri, E., Li, Z., Roberts, M. A., Deol, K. K., Lange, M., Lasheras-Otero, I., Momper, J. D., Dixon, S. J., Bersuker, K., Schaletzky, J., Olzmann, et al
2023
- **Lipid droplets and peroxisomes are co-regulated to drive lifespan extension in response to mono-unsaturated fatty acids.** *Nature cell biology*
Papsdorf, K., Miklas, J. W., Hosseini, A., Cabruja, M., Morrow, C. S., Savini, M., Yu, Y., Silva-Garcia, C. G., Haseley, N. R., Murphy, L. M., Yao, P., de Launoit, E., Dixon, et al
2023
- **Apoptotic cell death in disease-Current understanding of the NCCD 2023.** *Cell death and differentiation*
Vitale, I., Pietrocola, F., Guilbaud, E., Aaronson, S. A., Abrams, J. M., Adam, D., Agostini, M., Agostinis, P., Alnemri, E. S., Altucci, L., Amelio, I., Andrews, D. W., Aqeilan, et al
2023

- **Ferroptosis: A flexible constellation of related biochemical mechanisms.** *Molecular cell*
Dixon, S. J., Pratt, D. A.
2023
- **Ferroptotic mechanisms and therapeutic targeting of iron metabolism and lipid peroxidation in the kidney.** *Nature reviews. Nephrology*
Bayir, H., Dixon, S. J., Tyurina, Y. Y., Kellum, J. A., Kagan, V. E.
2023
- **Surveying the landscape of emerging and understudied cell death mechanisms.** *Biochimica et biophysica acta. Molecular cell research*
Leak, L., Dixon, S. J.
2023: 119432
- **Discovering new molecular mechanisms of cell death**
Dixon, S.
ELSEVIER.2023: S713
- **A Tale of Two Lipids: Lipid Unsaturation Commands Ferroptosis Sensitivity.** *Proteomics*
Rodencal, J., Dixon, S. J.
2022: e2100308
- **Oxaliplatin disrupts nucleolar function through biophysical disintegration.** *Cell reports*
Schmidt, H. B., Jaafar, Z. A., Wulff, B. E., Rodencal, J. J., Hong, K., Aziz-Zanjani, M. O., Jackson, P. K., Leonetti, M. D., Dixon, S. J., Rohatgi, R., Brandman, O.
2022; 41 (6): 111629
- **Ferroptosis inhibition by lysosome-dependent catabolism of extracellular protein.** *Cell chemical biology*
Armenta, D. A., Laqtom, N. N., Alchemy, G., Dong, W., Morrow, D., Poltorack, C. D., Nathanson, D. A., Abu-Remalieh, M., Dixon, S. J.
2022
- **Ether lipid deficiency disrupts lipid homeostasis leading to ferroptosis sensitivity.** *PLoS genetics*
Perez, M. A., Clostio, A. J., Houston, I. R., Ruiz, J., Magtanong, L., Dixon, S. J., Watts, J. L.
2022; 18 (9): e1010436
- **Context-dependent regulation of ferroptosis sensitivity.** *Cell chemical biology*
Magtanong, L., Mueller, G. D., Williams, K. J., Billmann, M., Chan, K., Armenta, D. A., Moffat, J., Boone, C., Myers, C. L., Olzmann, J. A., Bensinger, S. J., Dixon, S. J.
2022
- **Ribosome stalling during selenoprotein translation exposes a ferroptosis vulnerability.** *Nature chemical biology*
Li, Z., Ferguson, L., Deol, K. K., Roberts, M. A., Magtanong, L., Hendricks, J. M., Mousa, G. A., Kilinc, S., Schaefer, K., Wells, J. A., Bassik, M. C., Goga, A., Dixon, et al
2022
- **Lipid Metabolism and Ferroptosis.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
Dixon, S.
2022; 36 Suppl 1
- **A Novel Cell Death Mechanism Involving the Sphingosine-to-Glycerophospholipid Pathway.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
Leak, L., Dixon, S.
2022; 36 Suppl 1
- **Ferroptosis Regulation by the NGLY1/NFE2L1 Pathway.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
Murray, M., Forcina, G., Pope, L., Dong, W., Abu-Remaileh, M., Bertozzi, C., Dixon, S.
2022; 36 Suppl 1
- **The Role of Palmitoyltransferase ZDHHC5 in Regulating RAS Function.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
Ritho, J., Dixon, S.

2022; 36 Suppl 1

- **The Role of Monounsaturated Fatty Acids in Ferroptosis.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
Pope, L. E., Dixon, S.
2022; 36 Suppl 1
- **Nucleotide biosynthesis links glutathione metabolism to ferroptosis sensitivity.** *Life science alliance*
Tarangelo, A., Rodencal, J., Kim, J. T., Magtanong, L., Long, J. Z., Dixon, S. J.
1800; 5 (4)
- **Copper-induced cell death.** *Science (New York, N.Y.)*
Kahlson, M. A., Dixon, S. J.
2022; 375 (6586): 1231-1232
- **Ferroptosis regulation by the NGLY1/NFE2L1 pathway.** *Proceedings of the National Academy of Sciences of the United States of America*
Forcina, G. C., Pope, L., Murray, M., Dong, W., Abu-Remaileh, M., Bertozzi, C. R., Dixon, S. J.
2022; 119 (11): e2118646119
- **SU086, an inhibitor of HSP90, impairs glycolysis and represents a treatment strategy for advanced prostate cancer.** *Cell reports. Medicine*
Rice, M. A., Kumar, V., Tailor, D., Garcia-Marques, F. J., Hsu, E., Liu, S., Bermudez, A., Kanchustambham, V., Shankar, V., Inde, Z., Alabi, B. R., Muruganatham, A., Shen, et al
2022; 3 (2): 100502
- **Characterization of a small molecule inhibitor of disulfide reductases that induces oxidative stress and lethality in lung cancer cells.** *Cell reports*
Johnson, F. D., Ferrarone, J., Liu, A., Brandstadter, C., Munuganti, R., Farnsworth, D. A., Lu, D., Luu, J., Sihota, T., Jansen, S., Nagelberg, A., Shi, R., Forcina, et al
2022; 38 (6): 110343
- **Excited to see you: New imaging approaches to detect ferrous iron invivo.** *Cell chemical biology*
Ritho, J., Dixon, S. J.
1800; 29 (1): 3-4
- **Positive feedback amplifies ferroptosis.** *Nature cell biology*
Rodencal, J., Dixon, S. J.
1800; 24 (1): 4-5
- **Identifying a novel glycolytic inhibitor for treatment of aggressive prostate cancer.**
Stoyanova, T., Rice, M. A., Kumar, V., Tailor, D., Garcia-Marques, F., Bermudez, A., Kanchustambham, V., Shankar, V., Inde, Z., Pandrala, M., Nolley, R., Ghoochani, A., Liu, et al
AMER ASSOC CANCER RESEARCH.2021
- **Quantification of drug-induced fractional killing using high-throughput microscopy.** *STAR protocols*
Inde, Z., Rodencal, J., Dixon, S. J.
2021; 2 (1): 100300
- **A compendium of kinetic modulatory profiles identifies ferroptosis regulators.** *Nature chemical biology*
Conlon, M., Poltorack, C. D., Forcina, G. C., Armenta, D. A., Mallais, M., Perez, M. A., Wells, A., Kahanu, A., Magtanong, L., Watts, J. L., Pratt, D. A., Dixon, S. J.
2021
- **Understanding the Role of Cysteine in Ferroptosis: Progress & Paradoxes.** *The FEBS journal*
Poltorack, C. D., Dixon, S. J.
2021
- **Foreword FERROPTOSIS: MECHANISM AND DISEASES**
Dixon, S. J.
edited by Florez, A. F., Alborzina, H.
2021; 1301: V-VI

- **Ferroptosis occurs through an osmotic mechanism and propagates independently of cell rupture.** *Nature cell biology*
Riegman, M., Sagie, L., Galed, C., Levin, T., Steinberg, N., Dixon, S. J., Wiesner, U., Bradbury, M. S., Niethammer, P., Zaritsky, A., Overholtzer, M.
2020
- **Investigating Nonapoptotic Cell Death Using Chemical Biology Approaches.** *Cell chemical biology*
Armenta, D. A., Dixon, S. J.
2020
- **Systematic Identification of Regulators of Oxidative Stress Reveals Non-canonical Roles for Peroxisomal Import and the Pentose Phosphate Pathway.** *Cell reports*
Dubreuil, M. M., Morgens, D. W., Okumoto, K., Honsho, M., Contrepolis, K., Lee-McMullen, B., Traber, G. M., Sood, R. S., Dixon, S. J., Snyder, M. P., Fujiki, Y., Bassik, M. C.
2020; 30 (5): 1417
- **Dietary Lipids Induce Ferroptosis in Caenorhabditiselegans and Human Cancer Cells.** *Developmental cell*
Perez, M. A., Magtanong, L. n., Dixon, S. J., Watts, J. L.
2020
- **Reactivity-Based Probe of the Iron(II)-Dependent Interactome Identifies New Cellular Modulators of Ferroptosis.** *Journal of the American Chemical Society*
Chen, Y. C., Osés-Prieto, J. A., Pope, L. E., Burlingame, A. L., Dixon, S. J., Renslo, A. R.
2020
- **p53 deficiency triggers dysregulation of diverse cellular processes in physiological oxygen.** *The Journal of cell biology*
Valente, L. J., Tarangelo, A. n., Li, A. M., Naciri, M. n., Raj, N. n., Boutelle, A. M., Li, Y. n., Mello, S. S., Bieging-Rolett, K. n., DeBerardinis, R. J., Ye, J. n., Dixon, S. J., Attardi, et al
2020; 219 (11)
- **Kinetic Heterogeneity of Cancer Cell Fractional Killing.** *Cell reports*
Inde, Z. n., Forcina, G. C., Denton, K. n., Dixon, S. J.
2020; 32 (1): 107845
- **Prominin2 Drives Ferroptosis Resistance by Stimulating Iron Export.** *Developmental cell*
Brown, C. W., Amante, J. J., Chhoy, P., Elaimy, A. L., Liu, H., Zhu, L. J., Baer, C. E., Dixon, S. J., Mercurio, A. M.
2019
- **The CoQ oxidoreductase FSP1 acts parallel to GPX4 to inhibit ferroptosis.** *Nature*
Bersuker, K., Hendricks, J., Li, Z., Magtanong, L., Ford, B., Tang, P. H., Roberts, M. A., Tong, B., Maimone, T. J., Zoncu, R., Bassik, M. C., Nomura, D. K., Dixon, et al
2019
- **A ZDHHC5-GOLGA7 Protein Acyltransferase Complex Promotes Nonapoptotic Cell Death.** *Cell chemical biology*
Ko, P., Woodrow, C., Dubreuil, M. M., Martin, B. R., Skouta, R., Bassik, M. C., Dixon, S. J.
2019
- **GPX4 at the Crossroads of Lipid Homeostasis and Ferroptosis** *PROTEOMICS*
Forcina, G. C., Dixon, S. J.
2019; 19 (18)
- **Kinetic analysis identifies determinants of sensitivity to MEK inhibitor-induced cell death**
Inde, Z., Han, K., Bassik, M. C., Dixon, S. J.
AMER ASSOC CANCER RESEARCH.2019
- **GPX4 at the Crossroads of Lipid Homeostasis and Ferroptosis.** *Proteomics*
Forcina, G. C., Dixon, S. J.
2019: e1800311
- **The Hallmarks of Ferroptosis.** *Annual review of cancer biology*
Dixon, S. J., Stockwell, B. R.
2019; 3: 35-54

- **Ferroptosis and Brain Injury.** *Developmental neuroscience*
Magtanong, L., Dixon, S. J.
2019: 1–14
- **A Genome-wide Haploid Genetic Screen Identifies Regulators of Glutathione Abundance and Ferroptosis Sensitivity.** *Cell reports*
Cao, J. Y., Poddar, A., Magtanong, L., Lumb, J. H., Mileur, T. R., Reid, M. A., Dovey, C. M., Wang, J., Locasale, J. W., Stone, E., Cole, S. P., Carette, J. E., Dixon, et al
2019; 26 (6): 1544
- **The Hallmarks of Ferroptosis** *ANNUAL REVIEW OF CANCER BIOLOGY, VOL 3*
Dixon, S. J., Stockwell, B. R.
edited by Jacks, T., Sawyers, C. L.
2019; 3: 35–54
- **Lipid Metabolism and Ferroptosis** *FERROPTOSIS IN HEALTH AND DISEASE*
Tarangelo, A., Dixon, S. J.
edited by Tang, D.
2019: 1–26
- **Ferroptosis and Brain Injury**
Magtanong, L., Dixon, S. J.
KARGER.2019: 382–95
- **Exogenous Monounsaturated Fatty Acids Promote a Ferroptosis-Resistant Cell State.** *Cell chemical biology*
Magtanong, L., Ko, P., To, M., Cao, J. Y., Forcina, G. C., Tarangelo, A., Ward, C. C., Cho, K., Patti, G. J., Nomura, D. K., Olzmann, J. A., Dixon, S. J.
2018
- **Protein palmitoylation and cancer.** *EMBO reports*
Ko, P., Dixon, S. J.
2018
- **The p53-p21 pathway inhibits ferroptosis during metabolic stress.** *Oncotarget*
Tarangelo, A., Dixon, S.
2018; 9 (37): 24572–73
- **Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018** *CELL DEATH AND DIFFERENTIATION*
Galluzzi, L., Vitale, I., Aaronson, S. A., Abrams, J. M., Adam, D., Agostinis, P., Alnemri, E. S., Altucci, L., Amelio, I., Andrews, D. W., Annicchiarico-Petruzzelli, M., Antonov, A. V., Arama, et al
2018; 25 (3): 486–541
- **p53 Suppresses Metabolic Stress-Induced Ferroptosis in Cancer Cells** *CELL REPORTS*
Tarangelo, A., Magtanong, L., Bieging-Rolett, K. T., Li, Y., Ye, J., Attardi, L. D., Dixon, S. J.
2018; 22 (3): 569–75
- **MLKL Requires the Inositol Phosphate Code to Execute Necroptosis.** *Molecular cell*
Dovey, C. M., Diep, J. n., Clarke, B. P., Hale, A. T., McNamara, D. E., Guo, H. n., Brown, N. W., Cao, J. Y., Grace, C. R., Gough, P. J., Bertin, J. n., Dixon, S. J., Fiedler, et al
2018; 70 (5): 936–48.e7
- **The impact of non-genetic heterogeneity on cancer cell death** *CRITICAL REVIEWS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY*
Inde, Z., Dixon, S. J.
2018; 53 (1): 99–114
- **Ferroptosis: A Regulated Cell Death Nexus Linking Metabolism, Redox Biology, and Disease** *CELL*
Stockwell, B. R., Angeli, J., Bayir, H., Bush, A. I., Conrad, M., Dixon, S. J., Fulda, S., Gascon, S., Hatzios, S. K., Kagan, V. E., Noel, K., Jiang, X., Linkermann, et al
2017; 171 (2): 273–85
- **Systematic Quantification of Population Cell Death Kinetics in Mammalian Cells.** *Cell systems*

- Forcina, G. C., Conlon, M., Wells, A., Cao, J. Y., Dixon, S. J.
2017; 4 (6): 600-610.e6
- **Ferroptosis: bug or feature?** *IMMUNOLOGICAL REVIEWS*
Dixon, S. J.
2017; 277 (1): 150-157
 - **Ferroptosis-like death in plant cells.** *Molecular & cellular oncology*
Conlon, M., Dixon, S. J.
2017; 4 (3): e1302906
 - **Heat stress induces ferroptosis-like cell death in plants.** *journal of cell biology*
Distéfano, A. M., Martin, M. V., Córdoba, J. P., Bellido, A. M., D'Ippólito, S., Colman, S. L., Soto, D., Roldán, J. A., Bartoli, C. G., Zabaleta, E. J., Fiol, D. F., Stockwell, B. R., Dixon, et al
2017; 216 (2): 463-476
 - **Nanomedicine: An iron age for cancer therapy.** *Nature nanotechnology*
Tarangelo, A., Dixon, S. J.
2016; 11 (11): 921-922
 - **Global survey of cell death mechanisms reveals metabolic regulation of ferroptosis** *NATURE CHEMICAL BIOLOGY*
Shimada, K., Skouta, R., Kaplan, A., Yang, W. S., Hayano, M., Dixon, S. J., Brown, L. M., Valenzuela, C. A., Wolpaw, A. J., Stockwell, B. R.
2016; 12 (7): 497-?
 - **Mechanisms of ferroptosis** *CELLULAR AND MOLECULAR LIFE SCIENCES*
Cao, J. Y., Dixon, S. J.
2016; 73 (11-12): 2195-2209
 - **Emerging roles for lipids in non-apoptotic cell death.** *Cell death and differentiation*
Magtanong, L., Ko, P. J., Dixon, S. J.
2016
 - **Connectivity Homology Enables Inter-Species Network Models of Synthetic Lethality** *PLOS COMPUTATIONAL BIOLOGY*
Jacunski, A., Dixon, S. J., Tatonetti, N. P.
2015; 11 (10)
 - **Human Haploid Cell Genetics Reveals Roles for Lipid Metabolism Genes in Nonapoptotic Cell Death.** *ACS chemical biology*
Dixon, S. J., Winter, G. E., Musavi, L. S., Lee, E. D., Snijder, B., Rebsamen, M., Superti-Furga, G., Stockwell, B. R.
2015; 10 (7): 1604-9
 - **Human Haploid Cell Genetics Reveals Roles for Lipid Metabolism Genes in Nonapoptotic Cell Death** *ACS CHEMICAL BIOLOGY*
Dixon, S. J., Winter, G. E., Musavi, L. S., Lee, E. D., Snijder, B., Rebsamen, M., Superti-Furga, G., Stockwell, B. R.
2015; 10 (7): 1604-1609
 - **Pharmacological inhibition of cystine-glutamate exchange induces endoplasmic reticulum stress and ferroptosis** *ELIFE*
Dixon, S. J., Patel, D., Welsch, M., Skouta, R., Lee, E., Hayano, M., Thomas, A. G., Gleason, C., Tatonetti, N., Slusher, B. S., Stockwell, B. R.
2014; 3
 - **Ferostatin Inhibit Oxidative Lipid Damage and Cell Death in Diverse Disease Models** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Skouta, R., Dixon, S. J., Wang, J., Dunn, D. E., Orman, M., Shimada, K., Rosenberg, P. A., Lo, D. C., Weinberg, J. M., Linkermann, A., Stockwell, B. R.
2014; 136 (12): 4551-4556
 - **The role of iron and reactive oxygen species in cell death** *NATURE CHEMICAL BIOLOGY*
Dixon, S. J., Stockwell, B. R.
2014; 10 (1): 9-17
 - **Ferroptosis: An Iron-Dependent Form of Nonapoptotic Cell Death** *CELL*
Dixon, S. J., Lemberg, K. M., Lamprecht, M. R., Skouta, R., Zaitsev, E. M., Gleason, C. E., Patel, D. N., Bauer, A. J., Cantley, A. M., Yang, W. S., Morrison, B., Stockwell, B. R.
2012; 149 (5): 1060-1072

- **DRUG DISCOVERY Engineering drug combinations** *NATURE CHEMICAL BIOLOGY*
Dixon, S. J., Stockwell, B. R.
2010; 6 (5): 318-319
- **Identifying druggable disease-modifying gene products** *CURRENT OPINION IN CHEMICAL BIOLOGY*
Dixon, S. J., Stockwell, B. R.
2009; 13 (5-6): 549-555
- **An UNC-40 pathway directs postsynaptic membrane extension in *Caenorhabditis elegans*** *DEVELOPMENT*
Alexander, M., Chan, K. K., Byrne, A. B., Selman, G., Lee, T., Ono, J., Wong, E., Puckrin, R., Dixon, S. J., Roy, P. J.
2009; 136 (6): 911-922
- **Systematic Mapping of Genetic Interaction Networks** *ANNUAL REVIEW OF GENETICS*
Dixon, S. J., Costanzo, M., Baryshnikova, A., Andrews, B., Boone, C.
2009; 43: 601-625
- **Significant conservation of synthetic lethal genetic interaction networks between distantly related eukaryotes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Dixon, S. J., Fedyshyn, Y., Koh, J. L., Prasad, T. S., Chahwan, C., Chua, G., Toufighi, K., Baryshnikova, A., Hayles, J., Hoe, K., Kim, D., Park, H., Myers, et al
2008; 105 (43): 16653-16658
- **Insulin-like signaling negatively regulates muscle arm extension through DAF-12 in *Caenorhabditis elegans*** *DEVELOPMENTAL BIOLOGY*
Dixon, S. J., Alexander, M., Chan, K. K., Roy, P. J.
2008; 318 (1): 153-161
- **FGF negatively regulates muscle membrane extension in *Caenorhabditis elegans*** *DEVELOPMENT*
Dixon, S. J., Alexander, M., Fernandes, R., Ricker, N., Roy, P. J.
2006; 133 (7): 1263-1275
- **Muscle arm development in *Caenorhabditis elegans*** *DEVELOPMENT*
Dixon, S. J., Roy, P. J.
2005; 132 (13): 3079-3092