I. Personal information

Siddhartha Jaiswal, M.D., Ph.D.

Associate Professor of Pathology
Member, Institute for Stem Cell Biology and Regenerative Medicine

sjaiswal@stanford.edu

II. Education and Training

Predoctoral and Doctoral Training

September 1996-June 2000	BS (Honors)	Biological Sciences	Stanford University
July 2001-June 2010	MD, PhD	Medicine and Immunology (Irving Weissman, advisor)	Stanford University

Postdoctoral Training

July 2010-June 2014	Residency	Clinical Pathology	Massachusetts General Hospital
July 2012-June 2013	Fellowship	Transfusion Medicine	Harvard Medical School
July 2013-August 2017	Post-doctoral fellow	Hematology (Benjamin Ebert, advisor)	Brigham and Women's Hospital and Broad Institute

Licensure and Certification

2013-2017	Massachusetts Full Medical License
2017-present	California Full Medical License
2017-present	Board Certification in Clinical Pathology

III. Professional Appointments

07/01/2014-08/31/2017	Graduate Assistant in Pathology	Massachusetts General Hospital
09/01/2017-10/31/2017	Clinical Instructor	Stanford University School of Medicine
11/01/2017-10/31/2022	Assistant Professor of Pathology, University Tenure Line	Stanford University School of Medicine

11/01/2022-present	Reappointment, Assistant Professor of Pathology, University Tenure Line	Stanford University School of Medicine
12/01/2024-present	Associate Professor of Pathology (conferring tenure), University Tenure Line	Stanford University School of Medicine

IV. Honors and Prizes

2000	Phi Beta Kappa	Stanford University
2000	Firestone Medal	Stanford University
2000	Graduated with Honors	Stanford University
2014	Paul E. Strandjord Young Investigator Award	Academy of Clinical Laboratory Physicians and Scientists
2016	BroadIgnite Awardee	Broad Institute
2018	TransAtlantic Network of Excellence Award	Leducq Foundation
2020	NIH Director's New Innovator Award	National Institutes of Health
2020	ASH Scholar Award	American Society of Hematology
2022	LLS Discovery Grant Award	Leukemia and Lymphoma Society
2023	Knight Innovation Grant Award	Stanford Knight Initiative for Brain Resilience

V. Scholarly Publications (Original Research) (66 total)

Peer reviewed journal articles

1. **Jaiswal, S.*,** Traver, D.*, Miyamoto, T., Akashi, K., Lagasse, E., & Weissman, I. L. (2003). Expression of BCR/ABL and BCL-2 in myeloid progenitors leads to myeloid leukemias. *Proc Natl Acad Sci U S A, 100*(17), 10002-10007. doi:10.1073/pnas.1633833100
2. **Jaiswal, S.**, Jamieson, C. H., Pang, W. W., Park, C. Y., Chao, M. P., Majeti, R., Traver, D., van Rooijen, N., & Weissman, I. L. (2009). CD47 is upregulated on circulating hematopoietic stem cells and leukemia cells to avoid phagocytosis. *Cell, 138*(2), 271-285. doi:10.1016/j.cell.2009.05.046
3. Majeti, R., Chao, M. P., Alizadeh, A. A., Pang, W. W., **Jaiswal, S.,** Gibbs, K. D., Jr., van Rooijen, N., & Weissman, I. L. (2009). CD47 is an adverse prognostic factor and therapeutic antibody target on human acute myeloid leukemia stem cells. *Cell, 138*(2), 286-299. doi:10.1016/j.cell.2009.05.045
4. Chao, M. P., **Jaiswal, S.,** Weissman-Tsukamoto, R., Alizadeh, A. A., Gentles, A. J., Volkmer, J., Weiskopf, K., Willingham, S. B., Raveh, T., Park, C. Y., Majeti, R., & Weissman, I. L. (2010). Calreticulin is the dominant pro-phagocytic signal on multiple human cancers and is counterbalanced by CD47. *Sci Transl Med, 2*(63), 63ra94. doi:10.1126/scitranslmed.3001375
5. Han, M. H., Lundgren, D. H., **Jaiswal, S.,** Chao, M., Graham, K. L., Garris, C. S., Axtell, R. C., Ho, P. P., Lock, C. B., Woodard, J. I., Brownell, S. E., Zoudilova, M., Hunt, J. F., Baranzini, S. E., Butcher, E. C., Raine, C. S., Sobel, R. A., Han, D. K., Weissman, I., & Steinman, L. (2012). Janus-like opposing roles of CD47 in autoimmune brain inflammation in humans and mice. *J Exp Med, 209*(7), 1325-1334. doi:10.1084/jem.20101974
6. Willingham, S. B., Volkmer, J. P., Gentles, A. J., Sahoo, D., Dalerba, P., Mitra, S. S., Wang, J., Contreras-Trujillo, H., Martin, R., Cohen, J. D., Lovelace, P., Scheeren, F. A., Chao, M. P., Weiskopf, K., Tang, C., Volkmer, A. K., Naik, T. J., Storm, T. A., Mosley, A. R., Edris, B., Schmid, S. M., Sun, C. K., Chua, M. S., Murillo, O., Rajendran, P., Cha, A. C., Chin, R. K., Kim, D., Adorno, M., Raveh, T., Tseng, D., **Jaiswal, S.,** Enger, P. O., Steinberg, G. K., Li, G., So, S. K., Majeti, R., Harsh, G. R., van de Rijn, M., Teng, N. N., Sunwoo, J. B., Alizadeh, A. A., Clarke, M. F., &

Weissman, I. L. (2012). The CD47-signal regulatory protein alpha (SIRPa) interaction is a therapeutic target for human solid tumors. *Proc Natl Acad Sci U S A, 109*(17), 6662-6667. doi:10.1073/pnas.1121623109

7. **Jaiswal, S.,** Fontanillas, P., Flannick, J., Manning, A., Grauman, P. V., Mar, B. G., Lindsley, R. C., Mermel, C. H., Burtt, N., Chavez, A., Higgins, J. M., Moltchanov, V., Kuo, F. C., Kluk, M. J., Henderson, B., Kinnunen, L., Koistinen, H. A., Ladenvall, C., Getz, G., Correa, A., Banahan, B. F., Gabriel, S., Kathiresan, S., Stringham, H. M., McCarthy, M. I., Boehnke, M., Tuomilehto, J., Haiman, C., Groop, L., Atzmon, G., Wilson, J. G., Neuberg, D., Altshuler, D., & Ebert, B. L. (2014). Age-related clonal hematopoiesis associated with adverse outcomes. *N Engl J Med, 371*(26), 2488-2498. doi:10.1056/NEJMoa1408617
8. Yoda, A., Adelmant, G., Tamburini, J., Chapuy, B., Shindoh, N., Yoda, Y., Weigert, O., Kopp, N., Wu, S. C., Kim, S. S., Liu, H., Tivey, T., Christie, A. L., Elpek, K. G., Card, J., Gritsman, K., Gotlib, J., Deininger, M. W., Makishima, H., Turley, S. J., Javidi-Sharifi, N., Maciejewski, J. P., **Jaiswal, S.,** Ebert, B. L., Rodig, S. J., Tyner, J. W., Marto, J. A., Weinstock, D. M., & Lane, A. A. (2015). Mutations in G protein beta subunits promote transformation and kinase inhibitor resistance. *Nat Med, 21*(1), 71-75. doi:10.1038/nm.3751
9. Gibson, C. J., Lindsley, R. C., Tchekmedyian, V., Mar, B. G., Shi, J., **Jaiswal, S.**, Bosworth, A., Francisco, L., He, J., Bansal, A., Morgan, E. A., Lacasce, A. S., Freedman, A. S., Fisher, D. C., Jacobsen, E., Armand, P., Alyea, E. P., Koreth, J., Ho, V., Soiffer, R. J., Antin, J. H., Ritz, J., Nikiforow, S., Forman, S. J., Michor, F., Neuberg, D., Bhatia, R., Bhatia, S., & Ebert, B. L. ((2017). Clonal Hematopoiesis Associated With Adverse Outcomes After Autologous Stem-Cell Transplantation for Lymphoma. *J Clin Oncol, 35*(14), 1598-1605. doi:10.1200/JCO.2016.71.6712
10. **Jaiswal, S.,** Natarajan, P., Silver, A. J., Gibson, C. J., Bick, A. G., Shvartz, E., McConkey, M., Gupta, N., Gabriel, S., Ardissino, D., Baber, U., Mehran, R., Fuster, V., Danesh, J., Frossard, P., Saleheen, D., Melander, O., Sukhova, G. K., Neuberg, D., Libby, P., Kathiresan, S.*, Ebert, B. L.* (2017). Clonal Hematopoiesis and Risk of Atherosclerotic Cardiovascular Disease. *N Engl J Med, 377*(2), 111-121. doi:10.1056/NEJMoa1701719
11. Kahn, J. D., Miller, P. G., Silver, A. J., Sellar, R. S., Bhatt, S., Gibson, C., McConkey, M., Adams, D., Mar, B., Mertins, P., Fereshetian, S., Krug, K., Zhu, H., Letai, A., Carr, S. A., Doench, J., **Jaiswal, S.*,** Ebert, B. L.* (2018). PPM1D truncating mutations confer resistance to chemotherapy and sensitivity to PPM1D inhibition in hematopoietic cells. *Blood*. doi:10.1182/blood-2018-05-850339
12. Balliu, B., Durrant, M., Goede, O., Abell, N., Li, X., Liu, B., Gloudemans, M. J., Cook, N. L., Smith, K. S., Knowles, D. A., Pala, M., Cucca, F., Schlessinger, D., **Jaiswal, S.,** Sabatti, C., Lind, L., Ingelsson, E., & Montgomery, S. B. (2019). Genetic regulation of gene expression and splicing during a 10-year period of human aging. *Genome Biol, 20*(1), 230. doi:10.1186/s13059-019-1840-y #Contributed to interpretation of results related to clonan hematopoiesis genes
13. Bick, A. G., Weinstock, J. S., Nandakumar, S. K., Fulco, C. P., Bao, E. L., Zekavat, S. M., Szeto, M. D., Liao, X., Leventhal, M. J., Nasser, J., Chang, K., Laurie, C., Burugula, B. B., Gibson, C. J., Lin, A. E., Taub, M. A., Aguet, F., Ardlie, K., Mitchell, B. D., Barnes, K. C., Moscati, A., Fornage, M., Redline, S., Psaty, B. M., Silverman, E. K., Weiss, S. T., Palmer, N. D., Vasan, R. S., Burchard, E. G., Kardia, S. L. R., He, J., Kaplan, R. C., Smith, N. L., Arnett, D. K., Schwartz, D. A., Correa, A., de Andrade, M., Guo, X., Konkle, B. A., Custer, B., Peralta, J. M., Gui, H., Meyers, D. A., McGarvey, S. T., Chen, I. Y., Shoemaker, M. B., Peyser, P. A., Broome, J. G., Gogarten, S. M., Wang, F. F., Wong, Q., Montasser, M. E., Daya, M., Kenny, E. E., North, K. E., Launer, L. J., Cade, B. E., Bis, J. C., Cho, M. H., Lasky-Su, J., Bowden, D. W., Cupples, L. A., Mak, A. C. Y., Becker, L. C., Smith, J. A., Kelly, T. N., Aslibekyan, S., Heckbert, S. R., Tiwari, H. K., Yang, I. V., Heit, J. A., Lubitz, S. A., Johnsen, J. M., Curran, J. E., Wenzel, S. E., Weeks, D. E., Rao, D. C., Darbar, D., Moon, J. Y., Tracy, R. P., Buth, E. J., Rafaels, N., Loos, R. J. F., Durda, P., Liu, Y., Hou, L., Lee, J., Kachroo, P., Freedman, B. I., Levy, D., Bielak, L. F., Hixson, J. E., Floyd, J. S., Whitsel, E. A., Ellinor, P. T., Irvin, M. R., Fingerlin, T. E., Raffield, L. M., Armasu, S. M., Wheeler, M. M., Sabino, E. C.,

Blangero, J., Williams, L. K., Levy, B. D., Sheu, W. H., Roden, D. M., Boerwinkle, E., Manson, J. E., Mathias, R. A., Desai, P., Taylor, K. D., Johnson, A. D., Consortium, N. T.-O. f. P. M., Auer, P. L., Kooperberg, C., Laurie, C. C., Blackwell, T. W., Smith, A. V., Zhao, H., Lange, E., Lange, L., Rich, S. S., Rotter, J. I., Wilson, J. G., Scheet, P., Kitzman, J. O., Lander, E. S., Engreitz, J. M., Ebert, B. L., Reiner, A. P., **Jaiswal, S.,** Abacasis, G., Sankaran V. G., Kathiresan, S., Natarajan, P. (2020). Inherited causes of clonal haematopoiesis in 97,691 whole genomes. *Nature*, doi:10.1038/s41586-020-2819-2
#Contributed to experimental design, sequencing results, data analysis, and interpretation of results

14. Nachun, D., Lu, A. T., Bick, A. G., Natarajan, P., Weinstock, J., Szeto, M. D., Kathiresan, S., Abecasis, G., Taylor, K. D., Guo, X., Tracy, R., Durda, P., Liu, Y., Johnson, C., Rich, S. S., Van Den Berg, D., Laurie, C., Blackwell, T., Papanicolaou, G. J., Correa, A., Raffield, L. M., Johnson, A. D., Murabito, J., Manson, J. E., Desai, P., Kooperberg, C., Assimes, T. L., Levy, D., Rotter, J. I., Reiner, A. P., Whitsel, E. A., Wilson, J. G., Horvath, S., **Jaiswal, S**. (2021). Clonal hematopoiesis associated with epigenetic aging and clinical outcomes. *Aging Cell, 20*(6), e13366. doi:10.1111/acel.13366
15. Beauchamp EM, Leventhal M, Bernard E, Hoppe ER, Todisco G, Creignou M, Gallì A, Castellano, C. A., McConkey, M. E., Tarun, A., Wong, W. J., Schenone, M., Stanclift, C. R., Tanenbaum, B., Malolepsza, E., Nilsson, B., Bick, A. G., Weinstock, J. S., Miller, M., Niroula, A., Dunford, A., Taylor-Weiner, A., Wood, T., Barbera, A., Anand, S., Psaty, B. M., Desai, P., Cho, M. H., Johnson, A. D., Loos, R., MacArthur, D. G., Lek, M., Neuberg, D., Lage, K., Carr, S. A., Hellström-Lindberg, E., Malcovati, L., Papaemmanuil, E., Stewart, C., Getz, G., Bradley, R. K., **Jaiswal, S.*,** & Ebert, B. L.* (2021). ZBTB33 is mutated in clonal hematopoiesis and myelodysplastic syndromes and impacts RNA splicing. *Blood Cancer Discovery*, bloodcandisc.0224.2020. doi:10.1158/2643-3230.Bcd-20-0224
16. Kim, P. G., Niroula, A., Shkolnik, V., McConkey, M., Lin, A. E., Slabicki, M., Kemp, J. P., Bick, A., Gibson, C. J., Griffin, G., Sekar, A., Brooks, D. J., Wong, W. J., Cohen, D. N., Uddin, M. M., Shin, W. J., Pirruccello, J., Tsai, J. M., Agrawal, M., Kiel, D. P., Bouxsein, M. L., Richards, J. B., Evans, D. M., Wein, M. N., Charles, J. F., **Jaiswal, S**., Natarajan, P., & Ebert, B. L. (2021). Dnmt3a-mutated clonal hematopoiesis promotes osteoporosis. *J Exp Med*, 218(12). doi:10.1084/jem.20211872
#Contributed to generation of sequencing results for clonal hematopoiesis
17. Korley, F. K., Durkalski-Mauldin, V., Yeatts, S. D., Schulman, K., Davenport, R. D., Dumont, L. J., El Kassar, N., Foster, L. D., Hah, J. M., **Jaiswal, S.,** Kaplan, A., Lowell, E., McDyer, J. F., Quinn, J., Triulzi, D. J., Van Huysen, C., Stevenson, V. L. W., Yadav, K., Jones, C. W., Kea, B., Burnett, A., Reynolds, J. C., Greineder, C. F., Haas, N. L., Beiser, D. G., Silbergleit, R., Barsan, W., Callaway, C. W., & Investigators, S.-C. P. (2021). Early Convalescent Plasma for High-Risk Outpatients with Covid-19. *N Engl J Med*, 385(21), 1951-1960. doi:10.1056/NEJMoa2103784
#Contributed to developing the overall clinical trial protocol and the Stanford site protocols on the transfusion service
18. Agrawal, M., Niroula, A., Cunin, P., McConkey, M., Shkolnik, V., Kim, P. G., Wong, W. J., Weeks, L. D., Lin, A. E., Miller, P. G., Gibson, C. J., Sekar, A., Schaefer, I. M., Neuberg, D., Stone, R. M., Bick, A. G., Uddin, M. M., Griffin, G. K., **Jaiswal, S.,** Natarajan, P., Nigrovic, P. A., Rao, D. A., & Ebert, B. L. (2022). TET2-mutant clonal hematopoiesis and risk of gout. *Blood*, 140(10), 1094-1103. doi:10.1182/blood.2022015384
#Contributed to generation of sequencing results for clonal hematopoiesis
19. Bhattacharya, R., Zekavat, S. M., Haessler, J., Fornage, M., Raffield, L., Uddin, M. M., Bick, A. G., Niroula, A., Yu, B., Gibson, C., Griffin, G., Morrison, A. C., Psaty, B. M., Longstreth, W. T., Bis, J. C., Rich, S. S., Rotter, J. I., Tracy, R. P., Correa, A., Seshadri, S., Johnson, A., Collins, J. M., Hayden, K. M., Madsen, T. E., Ballantyne, C. M., **Jaiswal, S.,** Ebert, B. L., Kooperberg, C., Manson, J. E., Whitsel, E. A., Program, N. T.-O. f. P. M., Natarajan, P., & Reiner, A. P. (2022). Clonal Hematopoiesis Is Associated With Higher Risk of Stroke. *Stroke*, 53(3), 788-797. doi:10.1161/STROKEAHA.121.037388
#Contributed to generation of sequencing results for clonal hematopoiesis

20. Chowdhury, R. R., D'Addabbo, J., Huang, X., Veizades, S., Sasagawa, K., Louis, D. M., Cheng, P., Sokol, J., Jensen, A., Tso, A., Shankar, V., Wendel, B. S., Bakerman, I., Liang, G., Koyano, T., Fong, R., Nau, A. N., Ahmad, H., Gopakumar, J., Wirka, R., Lee, A. S., Boyd, J., Woo, Y. J., Quertermous, T., Gulati, G. S., **Jaiswal, S.,** Chien, Y. H., Chan, C. K. F., Davis, M. M., & Nguyen, P. K. (2022). Human Coronary Plaque T Cells Are Clonal and Cross-React to Virus and Self. *Circ Res*, 130(10), 1510-1530. doi:10.1161/CIRCRESAHA.121.320090
    #Supervised the generation of single-cell RNA-seq data from human atheroma
21. Miller, P. G., Qiao, D., Rojas-Quintero, J., Honigberg, M. C., Sperling, A. S., Gibson, C. J., Bick, A. G., Niroula, A., McConkey, M. E., Sandoval, B., Miller, B. C., Shi, W., Viswanathan, K., Leventhal, M., Werner, L., Moll, M., Cade, B. E., Barr, R. G., Correa, A., Cupples, L. A., Gharib, S. A., Jain, D., Gogarten, S. M., Lange, L. A., London, S. J., Manichaikul, A., O'Connor, G. T., Oelsner, E. C., Redline, S., Rich, S. S., Rotter, J. I., Ramachandran, V., Yu, B., Sholl, L., Neuberg, D., **Jaiswal, S.,** Levy, B. D., Owen, C. A., Natarajan, P., Silverman, E. K., van Galen, P., Tesfaigzi, Y., Cho, M. H., Ebert, B. L., Copdgene Study Investigators, N. H. L., & Blood Institute Trans-Omics for Precision Medicine, C. (2022). Association of clonal hematopoiesis with chronic obstructive pulmonary disease. *Blood*, 139(3), 357-368. doi:10.1182/blood.2021013531
    #Contributed to generation of sequencing results for clonal hematopoiesis
22. Nakao, T., Bick, A. G., Taub, M. A., Zekavat, S. M., Uddin, M. M., Niroula, A., Carty, C. L., Lane, J., Honigberg, M. C., Weinstock, J. S., Pampana, A., Gibson, C. J., Griffin, G. K., Clarke, S. L., Bhattacharya, R., Assimes, T. L., Emery, L. S., Stilp, A. M., Wong, Q., Broome, J., Laurie, C. A., Khan, A. T., Smith, A. V., Blackwell, T. W., Codd, V., Nelson, C. P., Yoneda, Z. T., Peralta, J. M., Bowden, D. W., Irvin, M. R., Boorgula, M., Zhao, W., Yanek, L. R., Wiggins, K. L., Hixson, J. E., Gu, C. C., Peloso, G. M., Roden, D. M., Reupena, M. S., Hwu, C. M., DeMeo, D. L., North, K. E., Kelly, S., Musani, S. K., Bis, J. C., Lloyd-Jones, D. M., Johnsen, J. M., Preuss, M., Tracy, R. P., Peyser, P. A., Qiao, D., Desai, P., Curran, J. E., Freedman, B. I., Tiwari, H. K., Chavan, S., Smith, J. A., Smith, N. L., Kelly, T. N., Hidalgo, B., Cupples, L. A., Weeks, D. E., Hawley, N. L., Minster, R. L., Samoan Obesity, L., Genetic Adaptations Study, G., Deka, R., Naseri, T. T., de Las Fuentes, L., Raffield, L. M., Morrison, A. C., Vries, P. S., Ballantyne, C. M., Kenny, E. E., Rich, S. S., Whitsel, E. A., Cho, M. H., Shoemaker, M. B., Pace, B. S., Blangero, J., Palmer, N. D., Mitchell, B. D., Shuldiner, A. R., Barnes, K. C., Redline, S., Kardia, S. L. R., Abecasis, G. R., Becker, L. C., Heckbert, S. R., He, J., Post, W., Arnett, D. K., Vasan, R. S., Darbar, D., Weiss, S. T., McGarvey, S. T., de Andrade, M., Chen, Y. I., Kaplan, R. C., Meyers, D. A., Custer, B. S., Correa, A., Psaty, B. M., Fornage, M., Manson, J. E., Boerwinkle, E., Konkle, B. A., Loos, R. J. F., Rotter, J. I., Silverman, E. K., Kooperberg, C., Danesh, J., Samani, N. J., **Jaiswal, S.,** Libby, P., Ellinor, P. T., Pankratz, N., Ebert, B. L., Reiner, A. P., Mathias, R. A., Do, R., Consortium, N. T.-O. f. P. M., & Natarajan, P. (2022). Mendelian randomization supports bidirectional causality between telomere length and clonal hematopoiesis of indeterminate potential. *Sci Adv*, 8(14), eabl6579. doi:10.1126/sciadv.abl6579
    #Contributed to generation of sequencing results for clonal hematopoiesis
23. Uddin, M. D. M., Nguyen, N. Q. H., Yu, B., Brody, J. A., Pampana, A., Nakao, T., Fornage, M., Bressler, J., Sotoodehnia, N., Weinstock, J. S., Honigberg, M. C., Nachun, D., Bhattacharya, R., Griffin, G. K., Chander, V., Gibbs, R. A., Rotter, J. I., Liu, C., Baccarelli, A. A., Chasman, D. I., Whitsel, E. A., Kiel, D. P., Murabito, J. M., Boerwinkle, E., Ebert, B. L., **Jaiswal, S.,** Floyd, J. S., Bick, A. G., Ballantyne, C. M., Psaty, B. M., Natarajan, P., & Conneely, K. N. (2022). Clonal hematopoiesis of indeterminate potential, DNA methylation, and risk for coronary artery disease. *Nat Commun*, 13(1), 5350. doi:10.1038/s41467-022-33093-3
    Uddin, M. M., Zhou, Y., Bick, A. G., Burugula, B. B., **Jaiswal, S.,** Desai, P., Honigberg, M. C., Love, S. A., Barac, A., Hayden, K. M., Manson, J. E., Whitsel, E. A., Kooperberg, C., Natarajan, P., Reiner, A. P., & Kitzman, J. O. (2022). Longitudinal profiling of clonal hematopoiesis provides insight into clonal dynamics. *Immun Ageing*, 19(1), 23. doi:10.1186/s12979-022-00278-9
    #Contributed to experimental design and analysis of sequencing results for clonal hematopoiesis

24. Vlasschaert, C., Mack, T., Heimlich, J. B., Niroula, A., Uddin, M. M., Weinstock, J., Sharber, B., Silver, A. J., Xu, Y., Savona, M., Gibson, C., Lanktree, M. B., Rauh, M. J., Ebert, B. L., Natarajan, P., **Jaiswal, S.,** & Bick, A. G. (2023). A practical approach to curate clonal hematopoiesis of indeterminate potential in human genetic data sets. *Blood*, 141(18), 2214-2223. doi:10.1182/blood.2022018825
    #Contributed to experimental design and analysis of sequencing results for clonal hematopoiesis
25. Weinstock, J. S., Gopakumar, J., Burugula, B. B., Uddin, M. M., Jahn, N., Belk, J. A., Bouzid, H., Daniel, B., Miao, Z., Ly, N., Mack, T. M., Luna, S. E., Prothro, K. P., Mitchell, S. R., Laurie, C. A., Broome, J. G., Taylor, K. D., Guo, X., Sinner, M. F., von Falkenhausen, A. S., Kaab, S., Shuldiner, A. R., O'Connell, J. R., Lewis, J. P., Boerwinkle, E., Barnes, K. C., Chami, N., Kenny, E. E., Loos, R. J. F., Fornage, M., Hou, L., Lloyd-Jones, D. M., Redline, S., Cade, B. E., Psaty, B. M., Bis, J. C., Brody, J. A., Silverman, E. K., Yun, J. H., Qiao, D., Palmer, N. D., Freedman, B. I., Bowden, D. W., Cho, M. H., DeMeo, D. L., Vasan, R. S., Yanek, L. R., Becker, L. C., Kardia, S. L. R., Peyser, P. A., He, J., Rienstra, M., Van der Harst, P., Kaplan, R., Heckbert, S. R., Smith, N. L., Wiggins, K. L., Arnett, D. K., Irvin, M. R., Tiwari, H., Cutler, M. J., Knight, S., Muhlestein, J. B., Correa, A., Raffield, L. M., Gao, Y., de Andrade, M., Rotter, J. I., Rich, S. S., Tracy, R. P., Konkle, B. A., Johnsen, J. M., Wheeler, M. M., Smith, J. G., Melander, O., Nilsson, P. M., Custer, B. S., Duggirala, R., Curran, J. E., Blangero, J., McGarvey, S., Williams, L. K., Xiao, S., Yang, M., Gu, C. C., Chen, Y. I., Lee, W. J., Marcus, G. M., Kane, J. P., Pullinger, C. R., Shoemaker, M. B., Darbar, D., Roden, D. M., Albert, C., Kooperberg, C., Zhou, Y., Manson, J. E., Desai, P., Johnson, A. D., Mathias, R. A., Consortium, N. T.-O. f. P. M., Blackwell, T. W., Abecasis, G. R., Smith, A. V., Kang, H. M., Satpathy, A. T., Natarajan, P., Kitzman, J. O., Whitsel, E. A., Reiner, A. P., Bick, A. G., & **Jaiswal, S.** (2023). Aberrant activation of TCL1A promotes stem cell expansion in clonal haematopoiesis. *Nature*. doi:10.1038/s41586-023-05806-1
26. Wong, W. J., Emdin, C., Bick, A. G., Zekavat, S. M., Niroula, A., Pirruccello, J. P., Dichtel, L., Griffin, G., Uddin, M. M., Gibson, C. J., Kovalcik, V., Lin, A. E., McConkey, M. E., Vromman, A., Sellar, R. S., Kim, P. G., Agrawal, M., Weinstock, J., Long, M. T., Yu, B., Banerjee, R., Nicholls, R. C., Dennis, A., Kelly, M., Loh, P. R., McCarroll, S., Boerwinkle, E., Vasan, R. S., **Jaiswal, S.,** Johnson, A. D., Chung, R. T., Corey, K., Levy, D., Ballantyne, C., Group, N. T. H. W., Ebert, B. L., & Natarajan, P. (2023). Clonal haematopoiesis and risk of chronic liver disease. *Nature*. doi:10.1038/s41586-023-05857-4
    #Contributed to experimental design and analysis of sequencing results for clonal hematopoiesis
27. Bouzid, H., Belk, J. A., Jan, M., Qi, Y., Sarnowski, C., Wirth, S., Ma, L., Chrostek, M. R., Ahmad, H., Nachun, D., Yao, W., Consortium, N. T.-O. f. P. M., Beiser, A., Bick, A. G., Bis, J. C., Fornage, M., Longstreth, W. T., Jr., Lopez, O. L., Natarajan, P., Psaty, B. M., Satizabal, C. L., Weinstock, J., Larson, E. B., Crane, P. K., Keene, C. D., Seshadri, S., Satpathy, A. T., Montine, T. J., & **Jaiswal, S.** (2023). Clonal hematopoiesis is associated with protection from Alzheimer's disease. *Nat Med*, 29(7), 1662-1670. doi:10.1038/s41591-023-02397-2
28. Weinstock, J. S., Laurie, C. A., Broome, J. G., Taylor, K. D., Guo, X., Shuldiner, A. R., O'Connell, J. R., Lewis, J. P., Boerwinkle, E., Barnes, K. C., Chami, N., Kenny, E. E., Loos, R. J. F., Fornage, M., Redline, S., Cade, B. E., Gilliland, F. D., Chen, Z., Gauderman, W. J., Kumar, R., Grammer, L., Schleimer, R. P., Psaty, B. M., Bis, J. C., Brody, J. A., Silverman, E. K., Yun, J. H., Qiao, D., Weiss, S. T., Lasky-Su, J., DeMeo, D. L., Palmer, N. D., Freedman, B. I., Bowden, D. W., Cho, M. H., Vasan, R. S., Johnson, A. D., Yanek, L. R., Becker, L. C., Kardia, S., He, J., Kaplan, R., Heckbert, S. R., Smith, N. L., Wiggins, K. L., Arnett, D. K., Irvin, M. R., Tiwari, H., Correa, A., Raffield, L. M., Gao, Y., de Andrade, M., Rotter, J. I., Rich, S. S., Manichaikul, A. W., Konkle, B. A., Johnsen, J. M., Wheeler, M. M., Custer, B. S., Duggirala, R., Curran, J. E., Blangero, J., Gui, H., Xiao, S., Williams, L. K., Meyers, D. A., Li, X., Ortega, V., McGarvey, S., Gu, C. C., Chen, Y. I., Lee, W. J., Shoemaker, M. B., Darbar, D., Roden, D., Albert, C., Kooperberg, C., Desai, P., Blackwell, T. W., Abecasis, G. R., Smith, A. V., Kang, H. M., Mathias, R., Natarajan, P., **Jaiswal, S.,** Reiner, A. P.,

Bick, A. G., & Consortium, N. T.-O. f. P. M. (2023). The genetic determinants of recurrent somatic mutations in 43,693 blood genomes. *Sci Adv*, 9(17), eabm4945. doi:10.1126/sciadv.abm4945
#Contributed to experimental design and analysis of sequencing results for clonal hematopoiesis

29. Gumuser, E. D., Schuermans, A., Cho, S. M. J., Sporn, Z. A., Uddin, M. M., Paruchuri, K., Nakao, T., Yu, Z., Haidermota, S., Hornsby, W., Weeks, L. D., Niroula, A., **Jaiswal, S.,** Libby, P., Ebert, B. L., Bick, A. G., Natarajan, P., & Honigberg, M. C. (2023). Clonal Hematopoiesis of Indeterminate Potential Predicts Adverse Outcomes in Patients With Atherosclerotic Cardiovascular Disease. *J Am Coll Cardiol*, 81(20), 1996-2009. doi:10.1016/j.jacc.2023.03.401
#Contributed to generation of sequencing results for clonal hematopoiesis
30. Schuermans, A., Nakao, T., Ruan, Y., Koyama, S., Yu, Z., Uddin, M. M., Haidermota, S., Hornsby, W., Lewandowski, A. J., Bick, A. G., Niroula, A., **Jaiswal, S.**, Ebert, B. L., Natarajan, P., & Honigberg, M. C. (2023). Birth Weight Is Associated With Clonal Hematopoiesis of Indeterminate Potential and Cardiovascular Outcomes in Adulthood. *J Am Heart Assoc*, 12(13), e030220. doi:10.1161/JAHA.123.030220
#Contributed to generation of sequencing results for clonal hematopoiesis
31. Rauch, P. J., Gopakumar, J., Silver, A. J., Nachun, D., Ahmad, H., McConkey, M., Nakao, T., Bosse, M., Rentz, T., Vivanco Gonzalez, N., Greenwald, N. F., McCaffrey, E. F., Khair, Z., Gopakumar, M., Rodrigues, K. B., Lin, A. E., Sinha, E., Fefer, M., Cohen, D. N., Vromman, A., Shvartz, E., Sukhova, G., Bendall, S., Angelo, M., Libby, P., Ebert, B. L., & **Jaiswal, S.** (2023). Loss-of-function mutations in Dnmt3a and Tet2 lead to accelerated atherosclerosis and concordant macrophage phenotypes. *Nature Cardiovascular Research*, 2(9), 805-818. doi:10.1038/s44161-023-00326-7
32. Schuermans, A., Vlasschaert, C., Nauffal, V., Cho, S. M. J., Uddin, M. M., Nakao, T., Niroula, A., Klarqvist, M. D. R., Weeks, L. D., Lin, A. E., Saadatagah, S., Lannery, K., Wong, M., Hornsby, W., Lubitz, S. A., Ballantyne, C., **Jaiswal, S.,** Libby, P., Ebert, B. L., Bick, A. G., Ellinor, P. T., Natarajan, P., & Honigberg, M. C. (2023). Clonal haematopoiesis of indeterminate potential predicts incident cardiac arrhythmias. *Eur Heart J*. doi:10.1093/eurheartj/ehad670
#Contributed to generation of sequencing results for clonal hematopoiesis
33. Yu, Z., Fidler, T. P., Ruan, Y., Vlasschaert, C., Nakao, T., Uddin, M. M., Mack, T., Niroula, A., Heimlich, J. B., Zekavat, S. M., Gibson, C. J., Griffin, G. K., Wang, Y., Peloso, G. M., Heard-Costa, N., Levy, D., Vasan, R. S., Aguet, F., Ardlie, K. G., Taylor, K. D., Rich, S. S., Rotter, J. I., Libby, P., **Jaiswal, S.,** Ebert, B. L., Bick, A. G., Tall, A. R., & Natarajan, P. (2023). Genetic modification of inflammation- and clonal hematopoiesis-associated cardiovascular risk. *J Clin Invest*, 133(18). doi:10.1172/JCI168597
#Contributed to generation of sequencing results for clonal hematopoiesis
34. Ahn, H. J., An, H. Y., Ryu, G., Lim, J., Sun, C., Song, H., Choi, S. Y., Lee, H., Maurer, T., Nachun, D., Kwon, S., Lee, S. R., Lip, G. Y. H., Oh, S., **Jaiswal, S.**, Koh, Y., & Choi, E. K. (2024). Clonal haematopoiesis of indeterminate potential and atrial fibrillation: an east Asian cohort study. *Eur Heart J, 45*(10), 778-790. doi:10.1093/eurheartj/ehad869
#Performed clonal hematopoiesis variant calling in UK Biobank dataset, oversaw the study, and co-corresponding author
35. Anthony, K. M., Collins, J. M., Love, S. M., Stewart, J. D., Buchheit, S. F., Gondalia, R., Schwartz, G. G., Huang, D. Y., Meliker, J. R., Zhang, Z., Barac, A., Desai, P., Hayden, K. M., Honigberg, M. C., **Jaiswal, S.,** Natarajan, P., Bick, A. G., Kooperberg, C., Manson, J. E., Reiner, A. P., & Whitsel, E. A. (2024). Radon Exposure, Clonal Hematopoiesis, and Stroke Susceptibility in the Women's Health Initiative. *Neurology, 102*(2), e208055. doi:10.1212/WNL.0000000000208055
#Contributed to generation of sequencing results for clonal hematopoiesis and interpretation of the findings
36. Love, S. M., Collins, J. M., Anthony, K. M., Buchheit, S. F., Butler, E. N., Bey, G. S., Gondalia, R., Hayden, K. M., Zannas, A. S., Bick, A. G., Manson, J. E., Desai, P. M., Natarajan, P., Bhattacharya, R., **Jaiswal, S.,** Barac, A., Reiner, A., Kooperberg, C., Stewart, J. D., & Whitsel, E. A. (2024). Individual and Neighborhood-level Socioeconomic Status and Somatic Mutations Associated With

Increased Risk of Cardiovascular Disease and Mortality: A Cross-Sectional Analysis in the Women's Health Initiative. *Womens Health Issues, 34*(2), 197-207. doi:10.1016/j.whi.2023.10.005
#Contributed to generation of sequencing results for clonal hematopoiesis and interpretation of the findings

37. Mack, T. M., Raddatz, M. A., Pershad, Y., Nachun, D. C., Taylor, K. D., Guo, X., Shuldiner, A. R., O'Connell, J. R., Kenny, E. E., Loos, R. J. F., Redline, S., Cade, B. E., Psaty, B. M., Bis, J. C., Brody, J. A., Silverman, E. K., Yun, J. H., Cho, M. H., DeMeo, D. L., Levy, D., Johnson, A. D., Mathias, R. A., Yanek, L. R., Heckbert, S. R., Smith, N. L., Wiggins, K. L., Raffield, L. M., Carson, A. P., Rotter, J. I., Rich, S. S., Manichaikul, A. W., Gu, C. C., Chen, Y. I., Lee, W. J., Shoemaker, M. B., Roden, D. M., Kooperberg, C., Auer, P. L., Desai, P., Blackwell, T. W., Smith, A. V., Reiner, A. P., **Jaiswal, S.**, Weinstock, J. S., & Bick, A. G. (2024). Epigenetic and proteomic signatures associate with clonal hematopoiesis expansion rate. *Nat Aging*. doi:10.1038/s43587-024-00647-7
#Contributed to study design and interpretation of results
38. Schuermans, A., Vlasschaert, C., Nauffal, V., Cho, S. M. J., Uddin, M. M., Nakao, T., Niroula, A., Klarqvist, M. D. R., Weeks, L. D., Lin, A. E., Saadatagah, S., Lannery, K., Wong, M., Hornsby, W., Lubitz, S. A., Ballantyne, C., **Jaiswal, S.,** Libby, P., Ebert, B. L., Bick, A. G., Ellinor, P. T., Natarajan, P., & Honigberg, M. C. (2024). Clonal haematopoiesis of indeterminate potential predicts incident cardiac arrhythmias. *Eur Heart J, 45*(10), 791-805. doi:10.1093/eurheartj/ehad670
#Contributed to generation of sequencing results for clonal hematopoiesis and interpretation of the findings

Other peer-reviewed publications

1. **Jaiswal, S.,** Chao, M. P., Majeti, R., & Weissman, I. L. (2010). Macrophages as mediators of tumor immunosurveillance. *Trends Immunol, 31*(6), 212-219. doi:10.1016/j.it.2010.04.001
2. Steensma, D. P., Bejar, R., **Jaiswal, S.,** Lindsley, R. C., Sekeres, M. A., Hasserjian, R. P., & Ebert, B. L. (2015). Clonal hematopoiesis of indeterminate potential and its distinction from myelodysplastic syndromes. *Blood, 126*(1), 9-16. doi:10.1182/blood-2015-03-631747
3. Jan, M., Ebert, B. L., & **Jaiswal, S.** (2017). Clonal hematopoiesis. *Semin Hematol, 54*(1), 43-50. doi:10.1053/j.seminhematol.2016.10.002
4. Natarajan, P., **Jaiswal, S.,** & Kathiresan, S. (2018). Clonal Hematopoiesis: Somatic Mutations in Blood Cells and Atherosclerosis. *Circ Genom Precis Med, 11*(7), e001926. doi:10.1161/CIRCGEN.118.001926
5. **Jaiswal, S.,** & Libby, P. (2019). Clonal haematopoiesis: connecting ageing and inflammation in cardiovascular disease. *Nat Rev Cardiol*. doi:10.1038/s41569-019-0247-5
6. **Jaiswal, S.,** & Ebert, B. L. (2019). Clonal hematopoiesis in human aging and disease. *Science, 366*(6465). doi:10.1126/science.aan4673
7. Khetarpal, S. A., Qamar, A., Bick, A. G., Fuster, J. J., Kathiresan, S., **Jaiswal, S.,** & Natarajan, P. (2019). Clonal Hematopoiesis of Indeterminate Potential Reshapes Age-Related CVD: JACC Review Topic of the Week. *J Am Coll Cardiol, 74*(4), 578-586. doi:10.1016/j.jacc.2019.05.045
8. Libby, P., Sidlow, R., Lin, A. E., Gupta, D., Jones, L. W., Moslehi, J., Zeiher, A., **Jaiswal, S.,** Schulz, C., Blankstein, R., Bolton, K. L., Steensma, D., Levine, R. L., & Ebert, B. L. (2019). Clonal Hematopoiesis: Crossroads of Aging, Cardiovascular Disease, and Cancer: JACC Review Topic of the Week. *J Am Coll Cardiol, 74*(4), 567-577. doi:10.1016/j.jacc.2019.06.007
9. Luis, T. C., Wilkinson, A. C., Beerman, I., **Jaiswal, S.**, & Shlush, L. I. (2019). Biological implications of clonal hematopoiesis. *Exp Hematol, 77*, 1-5. doi:10.1016/j.exphem.2019.08.004
10. **Jaiswal, S.** (2020). Clonal hematopoiesis and nonhematologic disorders. *Blood, 136*(14), 1606-1614. doi:10.1182/blood.2019000989
11. Iacopo, F., Branch, M., Cardinale, D., Middeldorp, M., Sanders, P., Cohen, J. B., Achirica, M. C., **Jaiswal, S.,** & Brown, S.-A. (2021). Preventive Cardio-Oncology: Cardiovascular Disease Prevention

in Cancer Patients and Survivors. *Current Treatment Options in Cardiovascular Medicine*, 23(1), 8. doi:10.1007/s11936-020-00883-1

12. Mitchell, S. R., Gopakumar, J., & **Jaiswal, S.** (2021). Insights into clonal hematopoiesis and its relation to cancer risk. *Curr Opin Genet Dev*, 66, 63-69. doi:10.1016/j.gde.2020.12.004
13. Duncavage, E. J., Bagg, A., Hasserjian, R. P., DiNardo, C. D., Godley, L. A., Iacobucci, I., **Jaiswal, S.,** Malcovati, L., Vannucchi, A. M., Patel, K. P., Arber, D. A., Arcila, M. E., Bejar, R., Berliner, N., Borowitz, M. J., Branford, S., Brown, A. L., Cargo, C. A., Dohner, H., Falini, B., Garcia-Manero, G., Haferlach, T., Hellstrom-Lindberg, E., Kim, A. S., Klco, J. M., Komrokji, R., Lee-Cheun Loh, M., Loghavi, S., Mullighan, C. G., Ogawa, S., Orazi, A., Papaemmanuil, E., Reiter, A., Ross, D. M., Savona, M., Shimamura, A., Skoda, R. C., Sole, F., Stone, R. M., Tefferi, A., Walter, M. J., Wu, D., Ebert, B. L., & Cazzola, M. (2022). Genomic profiling for clinical decision making in myeloid neoplasms and acute leukemia. *Blood*, 140(21), 2228-2247. doi:10.1182/blood.2022015853
14. Lin, A. E., Rauch, P. J., **Jaiswal, S.,** & Ebert, B. L. (2022). Clonal Hematopoiesis: Confluence of Malignant and Nonmalignant Diseases. *Annual Review of Cancer Biology*, 6(1), 187-200. doi:10.1146/annurev-cancerbio-060121-120026
15. Majeti, R., Jamieson, C., Pang, W. W., **Jaiswal, S.,** Leeper, N. J., Wernig, G., & Weissman, I. L. (2022). Clonal Expansion of Stem/Progenitor Cells in Cancer, Fibrotic Diseases, and Atherosclerosis, and CD47 Protection of Pathogenic Cells. *Annu Rev Med*, 73, 307-320. doi:10.1146/annurev-med-042420-104436
16. Walsh, K., Raghavachari, N., Kerr, C., Bick, A. G., Cummings, S. R., Druley, T., Dunbar, C. E., Genovese, G., Goodell, M. A., **Jaiswal, S.,** Maciejewski, J., Natarajan, P., Shindyapina, A. V., Shuldiner, A. R., Van Den Akker, E. B., & Vijg, J. (2022). Clonal Hematopoiesis Analyses in Clinical, Epidemiologic, and Genetic Aging Studies to Unravel Underlying Mechanisms of Age-Related Dysfunction in Humans. *Front Aging*, 3, 841796. doi:10.3389/fragi.2022.841796
17. Ahmad, H., Jahn, N., & **Jaiswal, S.** (2023). Clonal Hematopoiesis and Its Impact on Human Health. *Annu Rev Med*, 74, 249-260. doi:10.1146/annurev-med-042921-112347

Non-peer reviewed scientific or medical publications/materials in print or other media

1. **Jaiswal, S.,** & Weissman, I. L. (2009). Hematopoietic stem and progenitor cells and the inflammatory response. *Ann N Y Acad Sci, 1174*, 118-121. doi:10.1111/j.1749-6632.2009.04930.
2. **Jaiswal, S.,** & Ebert, B. L. (2014). MDS is a stem cell disorder after all. *Cancer Cell, 25*(6), 713-714. doi:10.1016/j.ccr.2014.06.001
3. **Jaiswal, S.,** Natarajan, P., & Ebert, B. L. (2017). Clonal Hematopoiesis and Atherosclerosis. *N Engl J Med, 377*(14), 1401-1402
4. Sellar, R. S., **Jaiswal, S.,** & Ebert, B. L. (2018). Predicting progression to AML. *Nat Med, 24*(7), 904-906. doi:10.1038/s41591-018-0114-7
5. Libby, P., **Jaiswal, S.,** Lin, A. E., & Ebert, B. L. (2019). CHIPping Away at the Pathogenesis of Heart Failure. *JAMA Cardiol, 4*(1), 5-6. doi:10.1001/jamacardio.2018.4039
6. Gopakumar, J., & **Jaiswal, S.** (2021). Infection makes micro-CHIPs into macro-CHIPs. *Cell Stem Cell,* 28(8), 1335-1336. doi:10.1016/j.stem.2021.07.006
7. **Jaiswal, S.,** & Bick, A. G. (2022). Modeling the temporal dynamics of clonal hematopoiesis. *Nature Cardiovascular Research*, 1(6), 537-538. doi:10.1038/s44161-022-00086-w
8. Ahmad, H., & **Jaiswal, S.** (2023). Clonal haematopoiesis and atherosclerotic cardiovascular disease. *Nature Revews Cardiology*, 20(7), 437-438. doi:10.1038/s41569-023-00882-7

Book chapters

1. Silver, A. J., & **Jaiswal, S.** (2019). Clonal hematopoiesis: Pre-cancer PLUS. *Adv Cancer Res, 141*, 85-128. doi:10.1016/bs.acr.2018.12.003

Thesis

Jaiswal S. "CD47 expression during leukemic and stress hematopoiesis alters phagocytic activity of macrophages." Dissertation in Program in Immunology, Stanford University School of Medicine. Defended August 2007, submitted January 2010.

*Denotes equal contribution

Complete List of Published Work in MyBibliography:
http://www.ncbi.nlm.nih.gov/sites/myncbi/1FMYoCxenTtAg/bibliography/48347321/public/?sort=date&direction=ascending.

VI. Grants

Active

1DP2HL15754001 (Jaiswal - SPO 160004) 08/26/2020 - 04/30/2025 3.00 calendar
National Institutes of Health PI
Clonal hematopoiesis in human aging and disease
Major Goals: We will use genetic data from hundreds of thousands of people to identify disease associations of clonal hematopoiesis and to understand the effect of these mutation on immune function.

8028-23 (Jaiswal - SPO 258088) 10/01/2022 - 09/30/2025 1.80 calendar
Leukemia and Lymphoma Society PI
TCL1A as a driver of clonal hematopoiesis and hematological malignancies
Major Goals: We will assess whether TCL1A expression is a causal driver of clonal hematopoiesis and hematologic malignancies.

KIG-105 (Jaiswal - SPO 290074) 01/15/2023 - 01/14/2026 2.40 calendar
Knight Initiative PI
Mutant microglia and resilience to Alzheimer's Disease
Major Goals: We will perform genomic analysis on brain samples from CHIP carriers and assess the effects of the mutations using iPSC model systems.

1R01AG088657 (Jaiswal - SPO 320747 R01) 08/15/2024 - 06/30/2029 1.20 calendar
National Institutes of Health / Vanderbilt University MPI
Clonal Hematopoiesis Aging Resiliency Mechanisms
Major Goals: To identify causes of clonal hematopoiesis and mechanisms of resilience to blood stem cell clonal expansions using human cohort data and cell and animal models.

1R01AG088656 (Jaiswal - SPO 320587 R01) 09/17/2024 - 05/31/2029 2.40 calendar
National Institutes of Health / Stanford University Lead PI

Uncovering mechanisms of protection from Alzheimer's disease in CHIP using human cohorts and biosamples

Major Goals: To uncover mechanisms of protection from Alzheimer's disease in people with clonal hematopoiesis using human genetics and biosamples.

Completed

DRG2018 09/01/2018 – 08/31/2020
Edward P. Evans Foundation PI

Single cell analysis of CHIP and CCUS

Major Goals: To determine whether the commonly mutated genes in CHIP result in differences in gene expression or hematopoietic stem and progenitor compartments from human samples using single-cell RNA seq combined with mutational analysis.

1015585.01 (Jaiswal - SPO 132780) 09/01/2017 -08/31/2022
The Burroughs Wellcome Fund PI
Elaborating the causal link between clonal hematopoiesis and atherosclerosis

Major Goals: The major goals of this project are to test whether common mutations in CHIP affect atherosclerosis in mouse models and identify potential therapeutic interventions to lower the risk of cardiovascular events in these models.

3-312-0217571-66017L (Schulman - SPO 191666) 06/01/2020 - 05/31/2021
National Institutes of Health / University of Pittsburgh Co-I (PI: Clifton Callaway)

Convalescent Plasma to Limit Coronavirus Associated Complications: A Randomized Double-Blind, Phase 2 Study Comparing the Efficacy and Safety of High-Titer Anti-SARS-CoV-2 Plasma vs. Placebo in Emergency Room Patients

Major goals: This phase III, randomized controlled trial will assess the efficacy of COVID-19 convalescent plasma in reducing the risk of hospitalization in outpatients with COVID-19.

N/A (Jaiswal - SPO 158513) 07/01/2020 -06/30/2022
American Society of Hematology PI

Uncovering the role of TET2 and DNMT3A in macrophage biology

Major Goals: To characterize *in vivo* macrophages in mice lacking *Tet2* or *Dnmt3a* by single-cell RNA sequencing in steady state and models of lung disease.

NHLBI R01HL148565-02 (Jaiswal - SPO 139159) 07/15/2019 - 06/30/2023
National Institutes of Health / Fred Hutchinson Cancer Research Center Co-I (PI: Alex Reiner and Eric Whitsel)

Clonal hematopoiesis in the Women's Health Initiative

Major Goals: To characterize CHIP in the Women's Health Initiative Long Life Study in order to understand factors that contribute to its development and association with diseases such as cancer and cardiovascular disease.

18CVD04 (Jaiswal - SPO 135465) 01/01/2019 -12/31/2023
Fondation Leducq / Columbia University Co-I (PI: Alan Tall and Andres Hidalgo)
Clonal hematopoiesis and atherosclerosis

Major Goals: This project will analyze human atherosclerotic lesions to assess whether the presence of CHIP is associated with stereotypical gene expression changes in plaque atheroma.

VII. Clinical trials

Completed trials

NCT04355767 08/11/2020 -12/31/2022
Convalescent Plasma in Outpatients with COVID-19 (C3PO)
Role: Study co-PI

VIII. Patents

Methods for manipulating phagocytosis mediated by CD47	WIPO Patent Application, PCT/US2009/000319, filed 01/15/2009
Therapeutic and diagnostic methods for manipulating phagocytosis through calreticulin and low-density lipoprotein-related receptor	WIPO Patent Application, PCT/US2011/066580, filed 07/1/2010
Method of identifying and treating a person having a predisposition to or afflicted by cardiometabolic disease	WIPO Patent Application PCT/US2015/062787, filed 11/25/2015
Compositions and methods for treating chemotherapy resistant cancer	WIPO Patent Application PCT/US2017/021830, filed 03/11/2016
IL-8, IL-6, IL-1B and TET2 and DNMT3A in atherosclerosis	WIPO Patent Application PCT/US2018/029098, filed 04/25/2017
Methods to Quantify Rate of Clonal Expansion and Methods for Treating Clonal Hematopoiesis and Hematologic Malignancies	US Provisional Application, 63/141,333, filed 07/30/2021
Inducing TCL1A Expression to Increase Proliferation and Prolong Stemness of Hematopoietic Stem Cells	US Provisional Application, 63/397,981, filed 8/15/2022

Clonal Hematopoiesis of Indeterminate Potential and Protection from Alzheimer's Disease	WIPO Patent Appliation PCT US2022/041380 filed 08/24/2022

IX. Editorial service

A. Editorial board memberships
Blood, 2018-present

B. Other peer review activities
Ad hoc reviewer for Science, Science Translational Medicine, Nature, Nature Genetics, Nature Communications, Nature Medicine, Nature Cardiovascular Research, New England Journal of Medicine, Cancer Cell, Cell Systems, Cell Stem Cell, Aging Cell, Circulation, Circulation Research, Journal of the American Heart Association, Cancer Discovery, Blood, Blood Advances, Journal of Clinical Investigation

X. Service as Grant Reviewer

Ad hoc reviewer for ERC, DZHK, NASA, RERF, Snow Medical Foundation, Leukemia and Lymphoma Society, International Alliance for Cancer Early Detection

XI. University Administrative Service

A. Committee service
Faculty search committees, Department of Pathology, 2018-2019
Graduate student admissions, Immunology PhD Program 2018-present
Graduate student admissions, Stem Cell PhD Program, 2018-present
Graduate student admissions, Cancer Biology PhD Program, 2022-present
Immunology Executive Committee, 2019-2021
Faculty search committee, Institute for Stem Cell Biology and Regenerative Medicine, 2024

B. Leadership roles
Immunology Retreat co-director, 2019-2021

XII. Service to Professional Organizations

A. Membership
American Society of Hematology 2014-present

B. Committee Service
Abstract reviewer, American Society of Hematology, 2019-2022
Session chair, American Society of Hematology Annual Meeting, 2019, 2022
Career development panel, American Society of Hematology Annual Meeting, 2019
Member, Committee on Myeloid Biology, American Society of Hematology, 2024-present

XIII. Presentations

Invited oral presentations (91 total)

Regional and National

June 2009	Stanford University, Regenerative Medicine Seminar Series, Stanford, CA
April 2012	Massachusetts Association of Blood Banks Annual Meeting, Boston, MA
December 2014	Broad Institute Annual Retreat, Boston, MA
January 2016	Baylor College of Medicine, STaR Center Special Seminar, Houston, TX
March 2016	AAMDS Scientific Symposium, Rockville, MD
January 2018	Siebel Stem Cell Institute Annual Symposium, Stanford, CA
July 2018	Genentech, South San Francisco, CA
October 2018	Immunology Seminar Series, Stanford University Program in Immunology
October 2018	PLMI 6th Annual Thought Leaders Consortium Keynote, Tucson, AZ
January 2019	UCSD Cardiovascular Science Conference, San Diego, CA
April 2019	Oregon National Primate Research Center Seminar Series, Portland, OR
May 2019	American Heart Association Vascular Discovery, Plenary Speaker, Boston, MA
June 2019	University of Utah Hematology Retreat, Park City, UT
September 2019	USC Broad CIRM Center Distinguished Speaker Series, Los Angeles, CA
October 2019	Guardant Health Invited Seminar, Redwood City, CA
February 2020	Siebel Stem Cell Institute Annual Symposium, Stanford, CA
March 2020	Cornell Pathology Grand Rounds, New York, NY
May 2020	City of Hope CCPS Seminar Series (virtual)
May 2020	Memorial Sloan Kettering Cancer Center, Clonal Hematopoiesis Seminar Series (virtual)
May 2020	Johns Hopkins Cancer Center Translation Research Conference (virtual)
October 2020	New York Academy of Sciences, Immune Contribution to Heart Failure and Therapeutic Opportunities (virtual)
January 2021	Cincinnati Children's, Cancer and Blood Diseases Research Institute Seminar Series (virtual)
March 2021	University of Pennsylvania, Penn Cardiovascular Institute Seminar Series (virtual)
March 2021	National Institute of Aging, Workshop on Clonal Hematopoiesis (virtual)
November 2021	Genentech Regeneration Seminar Series (virtual)
January 2022	NIA/RCCN Workshop on Measuring Biological Age (virtual)
February 2022	Baylor Hematology HemHub Seminar Series (virtual)
March 2022	NASA Space Radiation Seminar Series (virtual)
April 2022	Mayo Clinic Epigenomics Seminar Series (virtual)
May 2022	USC Cancer Epidemiology Seminar Series (virtual)
October 2022	RUNX1 Foundation Annual Meeting, Princeton, NJ
October 2022	Inaugural Conference on Pre-Disease Addressing Genetic Changes to Identify and Prevent Hematologic Malignancies, Nashville, TN
November 2022	UTSW Center for Regenerative Medicine Seminar Series, Dallas, TX
January 2023	AACR Special Conference on Acute Myeloid Leukemia and Myelodysplastic Syndrome, Austin, TX
February 2023	23andme Seminar Series (virtual)
March 2023	Baylor-Georgetown 5th Annual Acute Hematologic Malignancies Symposium, Houston, TX
September 2023	University of North Carolina Hematology Grand Rounds, Chapel Hill, NC
October 2023	Sanford Stem Cell Institute Annual Symposium, San Diego, CA
November 2023	Ohio State University Leukemia Program Retreat, Keynote, Columbus, OH
January 2024	City of Hope, special invited seminar, Duarte, CA
March 2024	MD Anderson Hematopoietic Stem Cell and Myelodysplastic Syndrome Symposium, Houston, TX

April 2024	Acute Leukemia Forum Faculty Session, San Diego, CA
April 2024	MD Anderson Hematological Malignancies Seminar Series, Houston, TX
April 2024	Baylor-Georgetown 6th Annual Acute Hematologic Malignancies Symposium, Washington, DC
June 2024	National Institute of Aging, invited seminar, Baltimore, MD

International

February 2017	International Molecular Medicine Tri Conference, San Francisco, CA
December 2017	American Society of Hematology Annual Meeting, Myeloid Workshop, Atlanta, GA
January 2018	British Heart Foundation Centre and JCI Symposium on Advances in Heart Failure, King's College London, London, UK
February 2018	Keystone Symposium on Atherosclerosis, Taos, New Mexico
May 2018	Weizmann Institute invited seminar, Rehovot, Israel
May 2018	2018 Israel Stem Cell Conference, Tel Aviv, Israel
September 2018	DZHK Annual Meeting, Frankfurt, Germany
October 2018	International Workshop on Co-morbidities and Adverse Drug Reactions in HIV, New York, NY
November 2018	American Heart Association Annual Meeting, Chicago, IL
December 2018	American Society of Hematology Annual Meeting, Aging Workshop, San Diego, CA
December 2018	7th Cancer Stem Cell Symposium, Keynote, Fukuoka, Japan
February 2019	International Symposium on Acute Leukemias XVII, Munich, Germany
May 2019	American Heart Association Vascular Discovery, Plenary Speaker, Boston, MA
May 2019	European Atherosclerosis Society Annual Meeting, Maastricht, Netherlands
June 2019	Ageing, Health, and Rejuvenation, Rotterdam, Netherlands
October 2019	Japanese Society of Hematology Annual Meeting, Keynote, Tokyo, Japan
October 2019	Radiation Effects Research Foundation, Hiroshima, Japan
October 2019	Centro Nacional de Investigaciones Cardiovasculares, New Concepts in Age Related Vascular Disease, Madrid, Spain
November 2019	Oxford WIMM Special Seminar, Oxford, UK
November 2019	American Heart Association Annual Meeting, Philadelphia, PA
January 2020	Precision Medicine World Conference, Santa Clara, CA
September 2020	Mexican Society of Thrombosis and Hemostasis Annual Congress, Keynote (virtual)
March 2021	United States and Canadian Academy of Pathology, Society for Hematology satellite meeting (virtual)
April 2021	Korean Society of Cardiology Annual Conference (virtual)
April 2021	Experimental Biology 2021 SCVP-ASIP Joint Symposium on Clonal Hematopoiesis (virtual)
June 2021	European Hematology Association Annual Meeting (virtual)
September 2021	Korea Genome Organization Annual Meeting (virtual)
October 2021	Japan Atherosclerosis Society Annual Meeting (virtual)
February 2022	Toronto City-wide Hematology Grand Rounds (virtual)
May 2022	GSK Immunology Network Annual Meeting, Collegeville, PA
May 2022	Erasmus Hematology Lecture Series (virtual)
September 2022	University of Toronto Recent Insights in Clonal Hematopoiesis Symposium (virtual)
October 2022	Haematology Society of Australia and NZ Annual Meeting (virtual)
November 2022	IRB Barcelona BioMed Conference on Quantitative Dynamics of Aging and Premalignancy, Barcelona, Spain
March 2023	Intercepting Blood Cancers 2023 Meeting, Madrid, Spain

April 2023	AACR Annual Meeting (Major Symposium on Clonal Hematopoiesis), Orlando, FL
May 2023	31st Nikolas Symposium on Histiocytosis, Athens, Greece
June 2023	Gordon Research Conference on Atherosclerosis, Barcelona, Spain
July 2023	Japanese Society of Hematology International Symposium, Tsukuba, Japan
September 2023	SingHealth Duke-National University of Singapore Scientific Congress, Singapore
October 2023	Gutenberg Workshop on Longitudinal Cohorts at IMB Mainz, Mainz, Germany
October 2023	Titisee Conference on Somatic Mosaicism, Titisee, Germany
March 2024	Intercepting Blood Cancers 2024 Meeting, Lisbon, Portugal
March 2024	Korean Society of Hematology Annual Meeting, Seoul, Korea
May 2024	Gustave Roussy Institute, Special Invited Seminar, Paris, France
August 2024	University of Helsinki iCAN, Special Invited Seminar, Helsinki, Finland
September 2024	Global Cardio-Oncology Summit, Minneapolis, MN

XIV. Community Service

Clinical Pathology resident mentoring, 2018-present
Canary CREST summer program mentor, 2019
Stanford Summer Research Program mentor, 2021
HBMC Summer Program mentor, 2022
CIRM Bridges Scholar mentor, 2023-present

XV. Trainees

Post-doctoral/Basic life research scientist mentees:

Daniel Nachun	10/2018-present	Stanford University
Hind Bouzid	12/2018-7/2022	Stanford University
Shaneice Mitchell	6/2019-present	Stanford University
Nikolaus Jahn	9/2020-10/2024	Stanford University
Raja Kalluru	11/2021-present	Stanford University
Julia Belk	9/2022-present	Stanford University
Isak Tengesdal	1/2023-present	Stanford University
Dipabarna Bhattacharya	12/2023-present	Stanford University
Max Arends	1/2024-present	Stanford University
Rajiv Sharma	11/2024-present	Stanford University
Debasmita Paul	12/2024-present	Stanford University

Student mentees:

Kameron Rodrigues	7/2018-present	Stanford University (PhD)
Jayakrishnan Gopakumar	9/2020-present	Stanford University (MD PhD)

Visiting scholar mentees:

Herra Ahmad	1/2019-6/2022	Charite University (PhD)
Youngil Koh	9/2022-5/2024	Seoul National University
Gangpyo Ryu	1/2023-1/2024	Seoul National University (PhD)

Doctoral Dissertation Reader:

Amira Barkal	2019	Stanford University (MD PhD)
Maxim Markovic	2019-2023	Stanford University (PhD)
Brooks Benard	2020-2023	Stanford University (PhD)
Alvaro Amarin	2020-present	Stanford University (MD PhD)
Jessica Basurto	2022-present	Stanford University (PhD)
Miles Linde	2022	Stanford University (PhD)
Anthony Francois	2023-present	Stanford University (PhD)
Omair Khan	2023-present	Stanford University (MD PhD)
James Chavez	2023-present	Stanford University (PhD)
Cassandra Stawicki	2023-present	Stanford University (PhD)
Allison Banuelos	2024-present	Stanford University (PhD)
Christopher Shiprack	2024-present	Stanford University (PhD)
Sofia Luna	2024-present	Stanford University (PhD)