



Anusha Kalbasi, MD

Associate Professor of Radiation Oncology (Radiation Therapy)
Radiation Oncology - Radiation Therapy

CLINICAL OFFICE (PRIMARY)

- **Radiation Oncology**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

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Bio

BIO

Dr. Kalbasi is a physician-scientist at the Stanford Cancer Institute. In the clinic, Dr. Kalbasi is a radiation oncologist specializing in the treatment of patients with sarcoma and other solid tumors, with expertise in early phase clinical trials related to immunotherapy, cellular therapy, and radiation therapy.

The Kalbasi laboratory studies cancer immunology, with a focus on understanding—and re-engineering—the molecular conversations that immune cells have with one another and with cancer cells, especially through cytokines. By mapping how these signals are sent, received, and interpreted within immune cells and cancer cells, the lab aims to design next-generation immunotherapies that deliver the right messages at the right time—making cancer-fighting cells more potent, more persistent, and more precise.

CLINICAL FOCUS

- Radiation Oncology

ACADEMIC APPOINTMENTS

- Associate Professor, Radiation Oncology - Radiation Therapy
- Member, Bio-X
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- CRI Lloyd J. Old STAR Award, Cancer Research Institute
- Robert L. and Mary Ellenburg Endowed Faculty Scholar, Stanford University School of Medicine
- MERIT Award (R37), National Cancer Institute
- AACR NextGen Star Award, American Association for Cancer Research
- Joseph Drown Foundation Dean's Award in Research Excellence, UCLA

- Clinical Scientist Career Development Award (K08), National Cancer Institute
- Damon Runyon Clinical Investigator Award, Damon Runyon Cancer Research Foundation
- MRA Young Investigator Award, Melanoma Research Alliance
- SITC Young Investigator Award, Society for Immunotherapy of Cancer
- SARC Career Enhancement Award, Sarcoma Alliance for Research through Collaboration
- Tower Cancer Research Foundation Young Investigator Award, Tower Cancer Research Foundation
- ASCO Merit Award, Conquer Cancer Foundation
- ASCO Young Investigator Award, Conquer Cancer Foundation
- Alpha Omega Alpha, David Geffen School of Medicine at UCLA
- HHMI Research Scholar, Howard Hughes Medical Institute
- Geffen Scholar, David Geffen School of Medicine
- Phi Beta Kappa, UCLA
- Merck Index Award, UCLA Dept. of Chemistry & Biochemistry
- Robert C. Byrd Scholar, U.S. Dept. of Education
- Regents' Scholar, UCLA

PROFESSIONAL EDUCATION

- Medical Education: UCLA David Geffen School Of Medicine (2011) CA
- Board Certification: Radiation Oncology, American Board of Radiology (2017)
- Residency: University of Pennsylvania Radiation Oncology Program (2016) PA
- Internship: University of Pennsylvania Internal Medicine Residency (2012) PA
- B.S., UCLA , Biochemistry
- M.D., David Geffen School of Medicine at UCLA , Medicine
- Board Certification, American Board of Radiology , Radiation Oncology

Research & Scholarship

CLINICAL TRIALS

- Phase tbd 5-Day Preoperative Radiation for Soft Tissue Sarcoma, Recruiting
- Nivolumab and BO-112 Before Surgery for the Treatment of Resectable Soft Tissue Sarcoma, Not Recruiting

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Cort Breuer, Keala Gapin, Oliver Takacsi-Nagy

Postdoctoral Faculty Sponsor

Segi Kim, Heather Ogana

Doctoral Dissertation Advisor (AC)

Sarah Cavender, Kayla Kulhanek, Johnathon Soro

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Immunology (Phd Program)

Publications

PUBLICATIONS

- **VisionOnc: a dynamic data visualiser for oncology.** *The Lancet. Digital health*
Bang, C., Ru, M., Jank, E., Oh, C., Lane, M., Liu, E. Y., Solomon, J., Kalbasi, A., Reddy, V. K., Raj, V. B., Sung, K., Savjani, R. R.
2026: 100999
- **Neoadjuvant BO-112 and hypofractionated radiation therapy with or without nivolumab in soft tissue sarcoma: preclinical and phase 1 results.** *Cancer discovery*
Deng, J., Pal, A., Testa, S., Xu, J. W., Tran, L. M., Graham, D. S., Hargil, A., Subramanian, A., Campbell, K. M., Limsuwannarot, S., Chumpitaz Lavallo, Á., Chin, S. C., Kremer, et al
2026
- **Rewiring STAT signaling from the cell surface with Trikin immunotherapeutics.** *Science (New York, N.Y.)*
Rodriguez, G. E., Zhao, Y., Nishiga, Y., Peprah, F., Shen, J., Abhiraman, G. C., Ogishi, M., Zhang, C., Saco, J., Waghray, D., Serasanambati, M., Torres, L., Simone, et al
2026: eadx9954
- **Decoding the evolutionary landscape of soft tissue sarcomas: From multiregion origins to therapy-driven adaptation**
Soudi, S., Silvia, N., Subramanian, A., Nouth, S., Ryu, F., Kaneko, T., New, C., Kenney, D., Avedian, R., Steffner, R., Mohler, D., Kalbasi, A., Van De Rijn, et al
AMER ASSOC CANCER RESEARCH.2025: B18
- **Five-Day Preoperative Radiation Therapy for Patients With High-Risk Soft Tissue Sarcoma: A Nonrandomized Clinical Trial.** *JAMA network open*
Nikitas, J., Kendal, J. K., Savjani, R. R., Jackson, N., Peterson, N., Deng, J., Hernandez, J., Chong, N., Singh, A. S., Chmielowski, B., Federman, N. C., Crompton, J. G., Kadera, et al
2025; 8 (12): e2550195
- **IL-9 as a naturally orthogonal cytokine with optimal JAK/STAT signaling for engineered T cell therapy.** *Immunity*
Jiang, H., Limsuwannarot, S., Kulhanek, K. R., Pal, A., Labiad, O., Rysavy, L. W., Wong, A., Su, L., Cavender, S., Soro, J., Testa, S., Ogana, H., Waghray, et al
2025
- **Dedicated review of sarcoma pathology is necessary for corroborative diagnosis in nearly one half of referred patients.** *Surgery*
Eckardt, M. A., Siena, N. M., Copeland, A. R., McCaw, T. R., Shehata, M. S., Lofftus, S. Y., Graham, D. S., Dao, H. B., Singh, A. S., Chmielowski, B., Federman, N., Kadera, B. E., Kalbasi, et al
2025; 188: 109610
- **Distinct cell state ecosystems for nodular lymphocyte-predominant Hodgkin lymphoma.** *Nature communications*
Subramanian, A., Su, S., Flerlage, J., Alig, S., Younes, S., Marks, L. J., Pinnix, C., Vega, F., Steiner, R., Kumar, P., Mocikova, H., Sykorova, A., Prochazka, et al
2025; 16 (1): 8473
- **LIFE-THREATENING MALIGNANCY IN PREGNANCY: A CASE SERIES OF THREE PATIENTS TREATED WITH PROTON RADIOTHERAPY WITH LONG TERM FOLLOW-UP**
Kurtz, G., Kalbasi, A., Hartl, B., Bieda, B., Amit, U., Alonso-Basanta, M., LaRiviere, M., Hill-Kayser, C.
ELSEVIER IRELAND LTD.2025
- **SCAN-ACT: adoptive T cell therapy target discovery through single-cell transcriptomics.** *Genome medicine*
Testa, S., Pal, A., Subramanian, A., Varma, S., Tang, J. P., Graham, D., Arfan, S., Pan, M., Bui, N. Q., Ganjoo, K. N., Dry, S., Huang, P., van de Rijn, et al
2025; 17 (1): 89

- **Expanding the cytokine receptor alphabet reprograms T cells into diverse states.** *Nature*
Zhao, Y., Ogishi, M., Pal, A., Su, L. L., Tao, P., Jiang, H., Rodriguez, G. E., Chen, X., Sun, Q., Rysavy, L. W., Limsuwanarot, S., Waghray, D., Kalbasi, et al
2025
- **Incomplete Cancer Surgery Correlates With Loss of Immune Surveillance and Hyper-Progression of Disease.** *Journal of surgical oncology*
Fine, S. A., Lim, S. Y., Siena, N. M., de Jesus, A. B., Goh, T., Markus, L., Russell, T. A., Kendal, J. K., Lofftus, S. Y., Shehata, M. S., Dao, H. B., Lee, A., Klingbeil, et al
2025
- **MicroRNA-based biomarkers of outcome in soft tissue sarcoma treated with hypofractionated preoperative radiation therapy**
Weidhaas, J. B., McGreevy, K., Nikitas, J., Kalbasi, A., Reddy, V., Telesca, D.
LIPPINCOTT WILLIAMS & WILKINS.2025
- **Association of Histologic Subtype With Radiation Response and Survival Outcomes in Synovial Sarcoma** *ADVANCES IN RADIATION ONCOLOGY*
Matsui, J. K., Jackson, S., Fang, J., Mohler, D. G., Steffner, R. J., Charville, G. W., van de Rijn, M., Million, L., Chin, A. L., Hiniker, S. M., Kalbasi, A., Moding, E. J.
2025; 10 (3)
- **Association of Histologic Subtype With Radiation Response and Survival Outcomes in Synovial Sarcoma.** *Advances in radiation oncology*
Matsui, J. K., Jackson, S., Fang, J., Mohler, D. G., Steffner, R. J., Avedian, R. S., Charville, G. W., Rijn, M. v., Million, L., Chin, A. L., Hiniker, S. M., Kalbasi, A., Moding, et al
2025; 10 (3): 101718
- **Proceedings of the National Cancer Institute Workshop on combining immunotherapy with radiotherapy: challenges and opportunities for clinical translation.** *The Lancet. Oncology*
Morris, Z. S., Demaria, S., Monjazeb, A. M., Formenti, S. C., Weichselbaum, R. R., Welsh, J., Enderling, H., Schoenfeld, J. D., Brody, J. D., McGee, H. M., Mondini, M., Kent, M. S., Young, et al
2025; 26 (3): e152-e170
- **IL-9 as a naturally orthogonal cytokine with optimal JAK/STAT signaling for engineered T cell therapy.** *bioRxiv : the preprint server for biology*
Jiang, H., Limsuwanarot, S., Kulhanek, K. R., Pal, A., Rysavy, L. W., Su, L., Labiad, O., Testa, S., Ogana, H., Waghray, D., Tao, P., Jude, K. M., Seet, et al
2025
- **Evolutionary Pressures Shape Undifferentiated Pleomorphic Sarcoma Development and Radiotherapy Response.** *Cancer research*
Blomain, E., Soudi, S., Wang, Z., Somani, A., Subramanian, A., Nouth, S. C., Oladipo, E., New, C., Kenney, D. E., Nemat-Gorgani, N., Kindler, T., Avedian, R. S., Steffner, et al
2025
- **Gold-siRNA supraclusters enhance the anti-tumor immune response of stereotactic ablative radiotherapy at primary and metastatic tumors.** *Nature biotechnology*
Jiang, Y., Cao, H., Deng, H., Guan, L., Langthasa, J., Colburg, D. R., Melemenidis, S., Cotton, R. M., Aleman, J., Wang, X. J., Graves, E. E., Kalbasi, A., Pu, et al
2024
- **Hypofractionated Preoperative Radiation Should Not Yet Be Used as Standard of Care for Extremity and Truncal Soft Tissue Sarcoma.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
Baldini, E. H., Guadagnolo, B. A., Salerno, K. E., Chung, P., Bishop, A. J., Kalbasi, A., Miah, A., Bedi, M., Harris, J. P., Petersen, I., Gillham, C., Wiltink, L. M., Alektiar, et al
2024: JCO2400238
- **Effect of palliative radiation dose on symptom response in metastatic sarcomas.** *Clinical and translational radiation oncology*
Matsui, J. K., Jackson, S., Fang, J., Million, L., Chin, A. L., Hiniker, S. M., Kalbasi, A., Moding, E. J.
2024; 48: 100803
- **Targeted Bias: The Next Swing at IL2 Therapy.** *Cancer discovery*
Kulhanek, K. R., Kalbasi, A.
2024; 14 (7): 1145-1146

- **Letting Radiation Therapy "Make Its Bones".** *International journal of radiation oncology, biology, physics*
Rao, P., Kalbasi, A.
2024; 118 (5): 1161
- **Antitumor Immune Responses in B2M-Deficient Cancers.** *Cancer immunology research*
Torrejon, D. Y., Galvez, M., Abril-Rodriguez, G., Campbell, K. M., Medina, E., Vega-Crespo, A., Kalbasi, A., Comin-Anduix, B., Ribas, A.
2023
- **Patterns of local recurrence and risk of skin recurrence in soft tissue sarcomas after surgical resection.** *Practical radiation oncology*
Ewongwo, A., Oladipo, E. D., Hui, C., Avedian, R. S., Steffner, R. J., Mohler, D. G., Kalbasi, A., Chin, A. L., Million, L., Hiniker, S. M., Moding, E. J.
2023
- **IGF2BP3 as a Prognostic Biomarker in Well-Differentiated/Dedifferentiated Liposarcoma.** *Cancers*
Klingbeil, K. D., Tang, J. P., Graham, D. S., Lofftus, S. Y., Jaiswal, A. K., Lin, T. L., Frias, C., Chen, L. Y., Nakasaki, M., Dry, S. M., Crompton, J. G., Eilber, F. C., Rao, et al
2023; 15 (18)
- **Adopting shorter radiation regimens: rules of engagement for sarcoma.** *The Lancet. Oncology*
Kalbasi, A.
2023; 24 (2): e70
- **Lifelong Imaging Surveillance is Indicated for Patients with Primary Retroperitoneal Liposarcoma.** *Annals of surgical oncology*
Eckardt, M. A., Graham, D. S., Klingbeil, K. D., Lofftus, S. Y., McCaw, T. R., Bailey, M. J., Goldring, C. J., Kendal, J. K., Kadera, B. E., Nelson, S. D., Dry, S. M., Kalbasi, A. K., Singh, et al
2022
- **Engineered IL13 variants direct specificity of IL13Rα2-targeted CAR T cell therapy.** *Proceedings of the National Academy of Sciences of the United States of America*
Stern, L. A., Gholamin, S., Moraga, I., Yang, X., Saravanakumar, S., Cohen, J. R., Starr, R., Aguilar, B., Salvary, V., Hibbard, J. C., Kalbasi, A., Shepphird, J. K., O'Hearn, et al
2022; 119 (33): e2112006119
- **Infrequent chromosomal loss and recurrent gains lead to imbalanced expression of HLA genes in melanoma**
Campbell, K. M., Saco, J., Medina, E., Amouzgar, M., Pfeiffer, S. M., Gonzalez, C. R., Steiner, G., Champhekar, A., Saus, C., Zaretsky, J., Rodriguez, G., Vega-Crespo, A., Carretero, et al
AMER ASSOC CANCER RESEARCH.2022
- **Human chimeric orthogonal IL9 receptor signaling promotes stemness and polyfunctionality for adoptive T cell therapy of cancer**
Tariveranmoshabad, M., Su, L. L., Sun, A. L., Picton, L. K., Ribas, A., Garcia, K., Kalbasi, A.
AMER ASSOC CANCER RESEARCH.2022
- **Potentiating adoptive cell therapy using synthetic IL-9 receptors.** *Nature*
Kalbasi, A., Siurala, M., Su, L. L., Tariveranmoshabad, M., Picton, L. K., Ravikumar, P., Li, P., Lin, J., Escuin-Ordinas, H., Da, T., Kremer, S. V., Sun, A. L., Castelli, et al
2022
- **Orthogonal IL-9 receptor signaling reprograms T cells to obviate conditioning chemotherapy before adoptive cell therapy.**
Kalbasi, A., Tariveranmoshabad, M., Escuin-Ordinas, H., Kremer, S., Su, L. L., Picton, L., Parisi, A., Garcia, C., Ribas, A.
AMER ASSOC CANCER RESEARCH.2021
- **PAK4 inhibition improves PD-1 blockade immunotherapy.** *Nature cancer*
Abril-Rodriguez, G., Torrejon, D. Y., Liu, W., Zaretsky, J. M., Nowicki, T. S., Tsoi, J., Puig-Saus, C., Baselga-Carretero, I., Medina, E., Quist, M. J., Garcia, A. J., Senapedis, W., Baloglu, et al
2020; 1 (1): 46-58
- **Uncoupling interferon signaling and antigen presentation to overcome immunotherapy resistance due to JAK1 loss in melanoma.** *Science translational medicine*
Kalbasi, A., Tariveranmoshabad, M., Hakimi, K., Kremer, S., Campbell, K. M., Funes, J. M., Vega-Crespo, A., Parisi, G., Champekar, A., Nguyen, C., Torrejon, D., Shin, D., Zaretsky, et al
2020; 12 (565)

- **Conserved Interferon- γ Signaling Drives Clinical Response to Immune Checkpoint Blockade Therapy in Melanoma.** *Cancer cell*
Grasso, C. S., Tsoi, J., Onyshchenko, M., Abril-Rodriguez, G., Ross-Macdonald, P., Wind-Rotolo, M., Champhekar, A., Medina, E., Torrejon, D. Y., Shin, D. S., Tran, P., Kim, Y. J., Puig-Saus, et al
2020; 38 (4): 500-515.e3
- **Overcoming Genetically Based Resistance Mechanisms to PD-1 Blockade.** *Cancer discovery*
Torrejon, D. Y., Abril-Rodriguez, G., Champhekar, A. S., Tsoi, J., Campbell, K. M., Kalbasi, A., Parisi, G., Zaretsky, J. M., Garcia-Diaz, A., Puig-Saus, C., Cheung-Lau, G., Wohlwender, T., Krystofinski, et al
2020; 10 (8): 1140-1157
- **A Phase II Trial of 5-Day Neoadjuvant Radiotherapy for Patients with High-Risk Primary Soft Tissue Sarcoma.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Kalbasi, A., Kamrava, M., Chu, F. I., Telesca, D., Van Dams, R., Yang, Y., Ruan, D., Nelson, S. D., Dry, S. M., Hernandez, J., Chmielowski, B., Singh, A. S., Bukata, et al
2020; 26 (8): 1829-1836
- **Adopting shorter radiation regimens: rules of engagement for sarcoma** *LANCET ONCOLOGY*
Kalbasi, A.
2020; 24 (2): E70
- **Tumour-intrinsic resistance to immune checkpoint blockade.** *Nature reviews. Immunology*
Kalbasi, A., Ribas, A.
2020; 20 (1): 25-39
- **Interleukin 32 expression in human melanoma.** *Journal of translational medicine*
Paz, H., Tsoi, J., Kalbasi, A., Grasso, C. S., McBride, W. H., Schaeue, D., Butterfield, L. H., Maurer, D. M., Ribas, A., Graeber, T. G., Economou, J. S.
2019; 17 (1): 113
- **A Pilot Trial of the Combination of Transgenic NY-ESO-1-reactive Adoptive Cellular Therapy with Dendritic Cell Vaccination with or without Ipilimumab.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Nowicki, T. S., Berent-Maoz, B., Cheung-Lau, G., Huang, R. R., Wang, X., Tsoi, J., Kaplan-Lefko, P., Cabrera, P., Tran, J., Pang, J., Macabali, M., Garcilazo, I. P., Carretero, et al
2019; 25 (7): 2096-2108
- **SD-101 in Combination with Pembrolizumab in Advanced Melanoma: Results of a Phase Ib, Multicenter Study** *CANCER DISCOVERY*
Ribas, A., Medina, T., Kummer, S., Amin, A., Kalbasi, A., Drabick, J. J., Barve, M., Daniels, G. A., Wong, D. J., Schmidt, E., Candia, A. F., Coffmann, R. L., Leung, et al
2018; 8 (10): 1250-57
- **Antigen Presentation Keeps Trending in Immunotherapy Resistance.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Kalbasi, A., Ribas, A.
2018; 24 (14): 3239-3241
- **Primary Resistance to PD-1 Blockade Mediated by JAK1/2 Mutations.** *Cancer discovery*
Shin, D. S., Zaretsky, J. M., Escuin-Ordinas, H., Garcia-Diaz, A., Hu-Lieskovan, S., Kalbasi, A., Grasso, C. S., Hugo, W., Sandoval, S., Torrejon, D. Y., Palaskas, N., Rodriguez, G. A., Parisi, et al
2017; 7 (2): 188-201
- **Tumor-Derived CCL2 Mediates Resistance to Radiotherapy in Pancreatic Ductal Adenocarcinoma.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Kalbasi, A., Komar, C., Tooker, G. M., Liu, M., Lee, J. W., Gladney, W. L., Ben-Josef, E., Beatty, G. L.
2017; 23 (1): 137-148
- **(99m)Tc-phytate as a diagnostic probe for assessing inflammatory reaction in malignant tumors** *NUCLEAR MEDICINE COMMUNICATIONS*
Fernandes, R. S., Mota, L. G., Kalbasi, A., Moghbel, M., Werner, T. J., Alavi, A., Rubello, D., Cardoso, V. N., de Barros, A. L.
2015; 36 (10): 1042-1048
- **Dose-Escalated Irradiation and Overall Survival in Men With Nonmetastatic Prostate Cancer.** *JAMA oncology*
Kalbasi, A., Li, J., Berman, A., Swisher-McClure, S., Saldone, M., Uzzo, R. G., Small, D. S., Mitra, N., Bekelman, J. E.
2015; 1 (7): 897-906

- **Radiation and immunotherapy: a synergistic combination.** *The Journal of clinical investigation*
Kalbasi, A., June, C. H., Haas, N., Vapiwala, N.
2013; 123 (7): 2756-63
- **Prevention of interleukin-2 withdrawal-induced apoptosis in lymphocytes retrovirally cotransduced with genes encoding an antitumor T-cell receptor and an antiapoptotic protein.** *Journal of immunotherapy (Hagerstown, Md. : 1997)*
Kalbasi, A., Shrimali, R. K., Chinnasamy, D., Rosenberg, S. A.
2010; 33 (7): 672-83