



Parveen Shiraz, MD

Instructor, Medicine - Blood & Marrow Transplantation

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Stanford Medicine Hematology Clinic**

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Bio

BIO

I am a physician-scientist in the Division of Bone Marrow Transplant-Cell Therapy. My clinical practice and laboratory research focus on enhancing the safety of hematopoietic stem cell transplant and exploring novel forms of cell therapy for myeloid malignancies.

CLINICAL FOCUS

- Hematology
- Bone Marrow Transplantation and Cancer Cell Therapy

ACADEMIC APPOINTMENTS

- Instructor, Medicine - Blood & Marrow Transplantation

ADMINISTRATIVE APPOINTMENTS

- Assistant Program Director, BMT-CT Fellowship Program, (2019-2023)

HONORS AND AWARDS

- AAMDSIF Research Award, Aplastic Anemia Myelodysplastic Syndrome International Foundation (AAMDSIF) (01/2025-12/2026)
- Department of Medicine DEI Award, Stanford University Department of Medicine (09/2024 - 08/2025)
- TRAM Scholar Award, Translational Research and Applied Medicine (TRAM) Program - Stanford Medicine (08/2022-08/2024)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Society of Transplant and Cell Therapy (2015 - present)
- Member, American Society of Hematology (2013 - present)

PROFESSIONAL EDUCATION

- Board Certification: Internal Medicine, American Board of Internal Medicine (2024)
- Residency: UCSF Health St Mary's Hospital (2000) CA

- Internship: Cedars Sinai Medical Center Internal Medicine Residency (1998) CA
- Fellowship: Stanford University Bone Marrow Transplant Fellowship (2016) CA
- Board Certification: Medical Oncology, American Board of Internal Medicine (2015)
- Board Certification: Hematology, American Board of Internal Medicine (2015)
- Fellowship: Loma Linda University Hematology and Medical Oncology Fellowship (2015) CA
- Medical Education: Kilpauk Medical College (1995) India

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am a physician-scientist in the Division of Blood and Marrow Transplantation-Cell Therapy (BMT-CT) at Stanford University. The focus of my laboratory research is the exploration of safe and more accessible forms of cell therapy for myeloid malignancies. I joined the laboratory of Dr. Judith Shizuru and produced multi-antigen targeting antibodies to recruit Natural Killer (NK) cells and macrophages to eliminate myeloid leukemic clones. Preclinical studies in xenograft models of myelodysplastic syndrome and acute myeloid leukemia are showing promising results. Additionally, I have engineered NK cells using their cytokine receptors to potentiate their leukemia cytotoxicity. Preclinical studies with these engineered NK cells for Myelodysplastic syndrome and Acute Myeloid Leukemia are ongoing. My translational research focuses on evaluating Thymic Stromal Lymphopoietin (TSLP) as a novel biomarker for Acute Graft Versus Host Disease (GVHD) which is a common and significant complication of hematopoietic stem cell transplant.

CLINICAL TRIALS

- Safety Study of Unlicensed IND Cord Blood Units Manufactured by the National Cord Blood Program for Unrelated Transplantation, Recruiting
- Donor-Derived Anti-CD33 CAR T Cell Therapy (VCAR33) in Patients With Relapsed or Refractory AML After Allogeneic Hematopoietic Cell Transplant, Not Recruiting
- Safety and Efficacy of Axicabtagene Ciloleucef in Combination With Rituximab in Participants With Refractory Large B-Cell Lymphoma, Not Recruiting
- Study of Lenzilumab and Axicabtagene Ciloleucef in Participants With Relapsed or Refractory Large B-Cell Lymphoma, Not Recruiting
- Treatment of GVHD in Hematopoietic Stem Cell Transplant (HSCT) Recipients Using AAT Plus Corticosteroids (CS) Compared With Corticosteroids Alone, Not Recruiting

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Hematology (Fellowship Program)

Publications

PUBLICATIONS

- **Dynamics of BCMA expression in patients with relapsed/refractory multiple myeloma receiving BCMA-directed CAR-T therapy.** *Blood cancer journal*
Rana, M. S., Fernandez-Pol, S., Jensen, A., Hovanky, V., Velayati, A., Oak, J. S., Silva, O., Ames, E., Muffly, L. S., Sahaf, B., Arai, S., Kennedy, V. E., Bharadwaj, et al
2026
- **Superior Chronic GVHD-Free Survival with Post-Transplant Cyclophosphamide Relative to Tacrolimus/Methotrexate in Myeloablative HLA-Matched Allogeneic Hematopoietic Cell Transplantation.** *Transplantation and cellular therapy*
Molina, A., Bubb, Q. R., Srinagesh, H. K., Yee, R., Arai, S., Bharadwaj, S., Dahiya, S., Elmariah, H., Frank, M., Hosoya, H., Johnston, L., Meyer, E., Mikkilineni, et al
2026
- **Nonmyeloablative Conditioning Combined with Anti-CD117 Antibody Briquilimab in Older Adults with High-Risk AML and MDS.** *Blood*

- Muffly, L. S., Lee, C. J., Gandhi, A., Varma, A., Scott, B. L., Patel, S. S., Shiraz, P., Youn, M., Yanagiba, C., Arulprakasam, J., Le, A., Kwon, H. S., Long-Boyle, et al
2026
- **Patient Characteristics, Toxicity, and Response after Real World Administration of Obecabtagene Autoleucl and Brexucabtagene Autoleucl for Relapsed Acute Lymphoblastic Leukemia: A Rocca Analysis**
Molina, A., Shiraz, P., Kanegai, A., Fraser, A., Kordek, D., Wagner, C., Danley, L., Ramakrishnan, A., Daghigh, H., Huang, Y., Dhapola, G., Siddiqui, A., Arai, et al
ELSEVIER SCIENCE INC.2026: S27
 - **Impact of Social Determinants of Health on Access to CAR-T Therapy and Outcomes in Multiple Myeloma Patients**
Rana, M., Kaveh, N., Jensen, A., Kennedy, V. E., Weng, W., Smith, M., Shiraz, P., Jandir, N., Latchford, T. M., Frank, M., Bharadwaj, S., Dahiya, S., Miklos, et al
ELSEVIER SCIENCE INC.2026
 - **Characterization and Outcomes of Switching Tacrolimus to Sirolimus in Patients with Transplant-Associated Thrombotic Microangiopathy**
Kennedy, V. E., Lauer, M., Shiraz, P., Arai, S., Johnston, L., Bharadwaj, S., Dahiya, S., Elmariah, H., Frank, M., Lowsky, R., Meyer, E. H., Mikkilineni, L., Muffly, et al
ELSEVIER SCIENCE INC.2026
 - **High Molecular Weight Isoforms of Thymic Stromal Lymphopoietin Correlate with Presence and Severity of Acute Graft Versus Host Disease**
Shiraz, P., Louloudis, I., Liliental, J. A., Muffly, L. S., Kennedy, V. E., Patel, S., Negrin, R. S., Lowsky, R., Arai, S., Johnston, L., Rezvani, A. R., Weng, W., Bharadwaj, et al
ELSEVIER SCIENCE INC.2026: S46-S47
 - **Axicabtagene ciloleucl in combination with rituximab for refractory large B cell lymphoma: the phase 2, single-arm ZUMA-14 trial. *Nature cancer***
Strati, P., Leslie, L., Shiraz, P., Budde, L. E., Oluwole, O. O., Ulrickson, M., Ramakrishnan, A., Zhang, T., Sun, J., Milletti, F., Kanska, J., Shen, R., Neumann, et al
2026
 - **Allogeneic HSC and regulatory T cell (Orca-T) engineered cell therapy following reduced intensity conditioning: Results of a single center Phase 1 study**
Villar-Prados, A., Kim, P., Sutherland, K., Negrin, R., Arai, S., Frank, M., Johnston, L., Lowsky, R., Miklos, D., Muffly, L., Dahiya, S., Rezvani, A., Sidana, et al
ELSEVIER.2025: 111-112
 - **Allogeneic hematopoietic cell transplantation in acute myeloid leukemia not in complete remission: outcomes and prognostic factors in a contemporary cohort. *Blood cancer journal***
Elias, S., Brown, S., Egini, O., Walji, M., Homsey, S., Velayati, A., Devlin, S., Ponce, D. M., Kennedy, V., Bharadwaj, S., Shiraz, P., Jakubowski, A. A., Papadopoulos, et al
2025; 15 (1): 208
 - **Non-response to bridging therapy prior to CAR-T is associated with increased toxicity and adverse outcomes in Relapsed/Refractory multiple myeloma (RRMM)**
Rana, M., Jensen, A., Velayati, A., Hovanky, V., Muffly, L., Sahaf, B., Iberri, D., Liedtke, M., Bharadwaj, S., Kennedy, V., Arai, S., Shiraz, P., Weng, et al
ELSEVIER.2025: 4586-4587
 - **Evaluating thymic stromal lymphopoietin (TSLP) as a biomarker in acute graft versus host disease**
Shiraz, P., Louloudis, L., Liliental, J., Patel, S., Jensen, A., Fonseca, S., Le, K., Diallo, B., Pavlova, A., Arai, S., Negrin, R., Rezvani, A., Johnston, et al
ELSEVIER.2025: 586-587
 - **Superior efficacy and persistence of Orca-T-allogeneic CAR19/22 versus autologous CAR19/22 in high-risk adult B-ALL**
Molina, A., Shiraz, P., Kanegai, A., Fraser, A., Kordek, D., Wagner, C., Srinagesh, H., Danley, L., Ramakrishnan, A., Daghigh, H., Huang, Y., Dhapola, G., Siddiqui, et al
ELSEVIER.2025: 514-515
 - **CAR19 therapy drives expansion of clonal hematopoiesis and associated cytopenias. *Research square***

- Hamilton, M. P., Phillips, N., Noordenbos, T., Boegeholz, J., Sugio, T., Sworder, B. J., Alig, S. K., Good, Z., Schroers-Martin, J. G., Tamareisis, J., Esfahani, M. S., Lu, Y., Olsen, et al
2025
- **The Impact of Anti-CD38 Monoclonal Antibody Therapy on Stem-Cell Mobilization Yields in Patients with Newly Diagnosed Multiple Myeloma (NDMM) Referred from Community and Academic Oncology Practices: Single Center, Real World Data 2021-2024.** *Transplantation and cellular therapy*
Uzun, D., Paul, J. M., Jensen, A., Tamareisis, J., Domingo, W., Arai, S., Ventura, F. A., Rocha, J., Bennett, L., Jones, A., Bharadwaj, S., Johnston, L., Lowsky, et al
2025
 - **Allogeneic hematopoietic cell transplantation for acute leukemia patients not in complete remission**
Elias, S., Brown, S., Eagini, O., Walji, M., Homsy, S., Velayati, A., Devlin, S., Ponce, D., Kennedy, V., Bharadwaj, S., Shiraz, P., Jakubowski, A. A., Papadopoulos, et al
LIPPINCOTT WILLIAMS & WILKINS.2025
 - **Fatal Recurrence of IEC-HS Following Autologous Stem Cell Boost in Patients Receiving BCMA CAR-T Cell Therapy.** *Blood advances*
Ananth, S., Torres, N. E., Sahaf, B., Mikkilineni, L., Fernandez-Pol, S., Salmi, D., Negrin, R. S., Shiraz, P., Smith, M., Bharadwaj, S., Weng, W. K., Kennedy, V. E., Dahiya, et al
2025
 - **Donor Regulatory T-Cell Therapy to Prevent Graft-Versus-Host Disease.** *Blood*
Meyer, E., Pavlova, A., Villar-Prados, A., Bader, C. S., Xie, B., Muffly, L., Kim, P., Sutherland, K. C., Bharadwaj, S., Dahiya, S., Frank, M. J., Arai, S., Johnston, et al
2025
 - **Belumosudil combination therapy for chronic graft-versus-host-disease in real-world clinical practice.** *Bone marrow transplantation*
Chin, M. M., Tamareisis, J. S., Johnston, L. J., Lowsky, R., Meyer, E., Muffly, L., Shiraz, P., Frank, M. J., Rezvani, A. R., Bharadwaj, S., Weng, W. K., Shizuru, J. A., Arai, et al
2024
 - **Single Institution Analysis of Lymphoma Treatment Related Post-CAR Myeloid Neoplasms**
Hamilton, M., Phillips, N., Lee, D., Ehlinger, Z., Kramer, A., Srinagesh, H., Good, Z., Kang, X., Olsen, M., Liu, C., Tian, F., Sworder, B. J., Hosoya, et al
ELSEVIER.2024: 96-97
 - **CD22-Directed CAR T-Cell Therapy Achieves Complete Remission in CD19-Directed CAR T-Cell Refractory Follicular and Mantle Cell Lymphoma**
Kramer, A., Srinagesh, H., Su, Y., Hamilton, M. P., Levine, K., Migliore, E., Denoble, K., Brown, A. K., Cunanan, K., Agarwal, N., Lohman, C., Mavroukakis, S., Bharadwaj, S., et al
ELSEVIER.2024: 2064-2066
 - **Safe and Effective Combination of Donor-Derived, Allogeneic CD19/CD22-CAR T Cells with Myeloablative Graft-Engineered Allo-HCT for High-Risk B-ALL**
Muffly, L., Ananth, S., Danley, L., Wagner, C., Kordek, D., Denoble, K., Fraser, A., Egeler, E., Molina, A., Ehlinger, Z., Desai, M., Daghagh, H., Tunuguntla, et al
ELSEVIER.2024: 680
 - **Safety and Efficacy of Chimeric Antigen Receptor T-Cell Therapy in Octogenarian Patients (Aged > 80) with Relapsed or Refractory (R/R) Large B-Cell Lymphoma (LBCL)**
Lee, D., Bharadwaj, S., Rana, M. S., Jensen, A., Wang, W., Ghalehsari, N., Sahaf, B., Mallampet, J., Elkordy, S., Latchford, T., Arai, S., Johnston, L., Hosoya, et al
ELSEVIER.2024: 386-387
 - **Anti-BCMA CAR T-Cell Expansion and Its Association with Response and Toxicity in Multiple Myeloma**
Hosoya, H., Jensen, A., Hovanky, V., Homsy, S., Cancilla, J. E., Patil, S., Kennedy, V. E., Bharadwaj, S., Smith, M., Shiraz, P., Frank, M. J., Dahiya, S., Arai, et al
ELSEVIER.2024: 2006-2007
 - **CD22-Directed CAR T-Cell Therapy for Large B-Cell Lymphomas Progressing after CD19-Directed CAR T-Cell Therapy: Continued Durable Remissions at 3-Year Follow-up**

- Kramer, A., Baird, J. H., Srinagesh, H., Egeler, E., Levine, K., Brown, A. K., Mavroukakis, S., Cunanan, K., Su, Y., Agarwal, N., Hamilton, M. P., Bharadwaj, S., Arai, et al
ELSEVIER.2024: 70-71
- **Phase II study of novel CXCR2 agonist and Plerixafor for rapid stem cell mobilization in patients with multiple myeloma.** *Blood cancer journal*
Sidana, S., Bankova, A. K., Hosoya, H., Kumar, S. K., Holmes, T. H., Tamaresis, J., Le, A., Muffly, L. S., Maysel-Auslender, S., Johnston, L., Arai, S., Lowsky, R., Meyer, et al
2024; 14 (1): 173
 - **PHASE 1 TRIAL RESULTS FOR PATIENTS WITH ADVANCED HEMATOLOGIC MALIGNANCIES TREATED WITH ORCA-T CELL THERAPY WITH REDUCED INTENSITY CONDITIONING AND SINGLE AGENT TACROLIMUS**
Villar-Prados, A., Sutherland, K., Negrin, R., Arai, S., Frank, M., Johnston, L., Lowsky, R., Miklos, D., Muffly, L., Dahiya, S., Rezvani, A., Sidana, S., Shiraz, et al
SPRINGER NATURE.2024: 287-288
 - **CD22-directed CAR T-cell therapy for large B-cell lymphomas progressing after CD19-directed CAR T-cell therapy: a dose-finding phase 1 study.** *Lancet (London, England)*
Frank, M. J., Baird, J. H., Kramer, A. M., Srinagesh, H. K., Patel, S., Brown, A. K., Oak, J. S., Younes, S. F., Natkunam, Y., Hamilton, M. P., Su, Y. J., Agarwal, N., Chinnasamy, et al
2024
 - **A Phase 1 Clinical Trial of NKTR-255 with CD19-22 CAR-T Cell Therapy for Refractory B-cell Acute Lymphoblastic Leukemia.** *Blood*
Srinagesh, H. K., Jackson, C., Shiraz, P., Jeyakumar, N., Hamilton, M. P., Egeler, E., Mavroukakis, S., Kuo, A., Cancilla, J., Sahaf, B., Agarwal, N., Kanegai, A. M., Kramer, et al
2024
 - **Bendamustine is a safe and effective lymphodepletion agent for axicabtagene ciloleucel in patients with refractory or relapsed large B-cell lymphoma.** *Journal for immunotherapy of cancer*
Bharadwaj, S., Lau, E., Hamilton, M. P., Goyal, A., Srinagesh, H., Jensen, A., Lee, D., Mallampet, J., Elkordy, S., Syal, S., Patil, S., Latchford, T., Sahaf, et al
2024; 12 (7)
 - **Management of post-autologous transplant relapse in patients with T-cell lymphomas.** *American journal of hematology*
Veilleux, O., Socola, F., Arai, S., Frank, M. J., Johnston, L., Lowsky, R., Shizuru, J., Meyer, E., Muffly, L., Rezvani, A. R., Shiraz, P., Sidana, S., Dahiya, et al
2024
 - **CAR19 monitoring by peripheral blood immunophenotyping reveals histology-specific expansion and toxicity.** *Blood advances*
Hamilton, M. P., Craig, E., Gentile Sanchez, C., Mina, A., Tamaresis, J., Kirmani, N., Ehlinger, Z., Syal, S., Good, Z., Sworder, B., Schroers-Martin, J., Lu, Y., Muffly, et al
2024
 - **CD22 CAR T cells demonstrate high response rates and safety in pediatric and adult B-ALL: Phase 1b results.** *Leukemia*
Schultz, L. M., Jeyakumar, N., Kramer, A. M., Sahaf, B., Srinagesh, H., Shiraz, P., Agarwal, N., Hamilton, M., Erickson, C., Jacobs, A., Moon, J., Baggott, C., Arai, et al
2024
 - **Single Center Randomized Trial of T-reg graft alone versus T-reg graft Plus Tacrolimus for the Prevention of Acute GVHD.** *Blood advances*
Bader, C. S., Pavlova, A., Lowsky, R., Muffly, L., Shiraz, P., Arai, S., Johnston, L. J., Rezvani, A. R., Weng, W. K., Miklos, D. B., Frank, M. J., Tamaresis, J. S., Agrawal, et al
2023
 - **CAR19 Therapy Drives Expansion of Clonal Hematopoiesis and Associated Cytopenias**
Hamilton, M. P., Sworder, B. J., Alig, S. K., Good, Z., Boegeholz, J., Schroers-Martin, J., Tamaresis, J., Esfahani, M., Lu, Y., Olsen, M., Liu, C., Ehlinger, Z., Desai, et al
AMER SOC HEMATOLOGY.2023
 - **Phase 1 Trial Results for Patients with Advanced Hematologic Malignancies Undergoing Reduced Intensity Allogeneic HCT with Orca-T Donor Cell Therapy Product and Single Agent Tacrolimus**
Villar-Prados, A., Meyer, E. H., Sutherland, K., Negrin, R. S., Arai, S., Frank, M. J., Johnston, L., Lowsky, R., Miklos, D. B., Muffly, L. S., Dahiya, S., Rezvani, A. R., Sidana, et al

AMER SOC HEMATOLOGY.2023

- **Next-Generation Sequencing-Based MRD in Adults with ALL Undergoing Hematopoietic Cell Transplantation.** *Blood advances*
Liang, E. C., Dekker, S. E., Sabile, J. M., Torelli, S., Zhang, A., Miller, K., Shiraz, P., Hayes-Lattin, B., Leonard, J. T., Muffly, L.
2023
- **Improved outcomes for relapsed/refractory Hodgkin lymphoma after autologous transplantation in the era of novel agents.** *Blood*
Spinner, M. A., Sica, R. A., Tamaresis, J. S., Lu, Y., Chang, C., Lowsky, R., Frank, M. J., Johnston, L. J., Miklos, D. B., Muffly, L., Negrin, R. S., Rezvani, A. R., Shiraz, et al
2023
- **Ultra-Sensitive Next-Generation Sequencing Establishes the Prognostic Value of Very Low MRD in Adults with Acute Lymphoblastic Leukemia Undergoing Hematopoietic Cell Transplantation**
Liang, E. C., Dekker, S. E., Sabile, J. M. G., Torelli, S., Zhang, A., Miller, K., Shiraz, P., Hayes-Lattin, B., Leonard, J., Muffly, L.
AMER SOC HEMATOLOGY.2022: 1732-1733
- **Higher Rates of Severe Infection and Persistent Cytopenias in Long-Term CAR19 Responders Than after Autologous HCT: A Single Institution Study of 139 Subjects**
Hamilton, M. P., Liu-Fei, F. C., Alig, S. K., Tamaresis, J., Esfahani, M., Good, Z., Sworder, B., Schroers-Martin, J., Liu, C., Severinsen, F., Hanson, P. J., Lu, Y., Lowsky, et al
AMER SOC HEMATOLOGY.2022: 7545-7547
- **The Development of Carhlh after Axicabtagene Ciloleucel Is Associated with Poor Outcomes**
Philip, S., Srinagesh, H. K., Hamilton, M. P., Gentile, C., Mina, A., Arai, S., Johnston, L. J., Lowsky, R., Meyer, E. H., Negrin, R. S., Rezvani, A. R., Shiraz, P., Shizuru, et al
AMER SOC HEMATOLOGY.2022: 12775-12777
- **Analysis of Bendamustine Lymphodepletion, CD19 CART Expansion, Safety and Efficacy in Patients with Rel/Ref NonHodgkin Lymphoma**
Bharadwaj, S., Hamilton, M. P., Sahaf, B., Tamaresis, J., Patil, S., Hanson, P. J., Latchford, T., Arai, S., Johnston, L. J., Lowsky, R., Negrin, R. S., Rezvani, A. R., Shizuru, et al
AMER SOC HEMATOLOGY.2022: 10371-10373
- **Belumosudil Combination Therapy in Refractory Chronic Graft-Versus-Host Disease**
Chin, M., Shizuru, J. A., Muffly, L., Shiraz, P., Johnston, L. J., Lowsky, R., Rezvani, A. R., Frank, M. J., Bharadwaj, S., Weng, W., Negrin, R. S., Miklos, D. B., Arai, et al
AMER SOC HEMATOLOGY.2022: 4788-4789
- **Outcomes for Acute Myeloid Leukemia Relapse after Allogeneic Hematopoietic Cell Transplantation Remain Poor in the Modern Era**
Philip, S., Lowsky, R., Johnston, L. J., Arai, S., Meyer, E. H., Negrin, R. S., Rezvani, A. R., Shiraz, P., Shizuru, J. A., Sidana, S., Weng, W., Bharadwaj, S., Frank, et al
AMER SOC HEMATOLOGY.2022: 4825-4827
- **ZUMA-19: A Phase 1/2 Study of Axicabtagene Ciloleucel Plus Lenzilumab in Patients With Relapsed or Refractory Large B-Cell Lymphoma**
Oluwole, O. O., Kenderian, S. S., Shiraz, P., Karmali, R., Reshef, R., McCarthy, P. L., Ghosh, N., Lazaryan, A., Filosto, S., Poddar, S., Mao, D., Peng, A., Kilcoyne, et al
AMER SOC HEMATOLOGY.2022: 10318-10320
- **Axicabtagene ciloleucel (axi-cel) in combination with rituximab (Rtx) for the treatment (Tx) of refractory large B-cell lymphoma (R-LBCL): Outcomes of the phase 2 ZUMA-14 study.**
Strati, P., Leslie, L., Shiraz, P., Budde, L., Oluwole, O. O., Ulrickson, M., Ramakrishnan, A., Sun, J., Shen, R., Kanska, J., McCroskery, P., Dong, J., Schupp, et al
LIPPINCOTT WILLIAMS & WILKINS.2022
- **Allogeneic Hematopoietic Cell Transplantation for Adult Acute Lymphoblastic Leukemia in the Modern Era.** *Transplantation and cellular therapy*
Liang, E. C., Craig, J., Torelli, S., Cunanan, K., Iglesias, M., Arai, S., Frank, M. J., Johnston, L., Lowsky, R., Meyer, E. H., Miklos, D. B., Negrin, R., Rezvani, et al
2022
- **Real-world Experience of Cryopreserved Allogeneic Hematopoietic Grafts in the COVID-19 Pandemic: A Single Center Report.** *Transplantation and cellular therapy*

- Bankova, A. K., Caveney, J., Yao, B., Ramos, T. L., Bogeholz, J., Heydari, K., Diaz, N., Jackson, M. L., Lowsky, R., Brown, J. W., Johnston, L., Rezvani, A. R., Frank, et al
1800
- **CD22-CAR T-Cell Therapy Mediates High Durable Remission Rates in Adults with Large B-Cell Lymphoma Who Have Relapsed after CD19-CAR T-Cell Therapy**
Frank, M. J., Baird, J. H., Patel, S., Craig, J., Spiegel, J. Y., Ehlinger, Z., Chinnasamy, H., Younes, S. F., Oak, J. S., Natkunam, Y., Reynolds, W. D., Iglesias, M., Crawford, et al
AMER SOC HEMATOLOGY.2021
 - **Outcomes for Myelofibrosis Patients Following Myeloablative Allogeneic Stem Cell Transplantation Using the Orca-T Graft from HLA-Matched Related and Unrelated Donors**
Arpita, G., Moroz, A., Muffly, L., Shiraz, P., Schachter, L., Fernhoff, N. B., McClellan, J., Negrin, R. S., Gottlib, J., Meyer, E. H.
AMER SOC HEMATOLOGY.2021: 1819-+
 - **Mgta-145+Plerixafor Provides GCSF-Free Rapid and Reliable Hematopoietic Stem Cell Mobilization for Autologous Stem Cell Transplant in Patients with Multiple Myeloma: A Phase 2 Study**
Sidana, S., Bankova, A. K., Hosoya, H., Kumar, S., Tamaresis, J., Le, A., Muffly, L., Johnston, L. J., Arai, S., Lowsky, R., Meyer, E. H., Rezvani, A. R., Weng, et al
AMER SOC HEMATOLOGY.2021
 - **Incidence and risk factors associated with bleeding and thrombosis following chimeric antigen receptor T-cell therapy** *BLOOD ADVANCES*
Johnsrud, A., Craig, J., Baird, J., Spiegel, J., Muffly, L., Zehnder, J., Tamaresis, J., Negrin, R., Johnston, L., Arai, S., Shizuru, J., Lowsky, R., Meyer, et al
2021; 5 (21): 4465-4475
 - **T-Cell Acute Lymphoblastic Leukemia-Current Concepts in Molecular Biology and Management.** *Biomedicines*
Shiraz, P., Jehangir, W., Agrawal, V.
2021; 9 (11)
 - **Alloantigen-specific type 1 regulatory T cells suppress through CTLA-4 and PD-1 pathways and persist long-term in patients.** *Science translational medicine*
Chen, P. P., Cepika, A., Agarwal-Hashmi, R., Saini, G., Uyeda, M. J., Louis, D. M., Cieniewicz, B., Narula, M., Amaya Hernandez, L. C., Harre, N., Xu, L., Thomas, B. C., Ji, et al
2021; 13 (617): eabf5264
 - **Concordance of peripheral blood and bone marrow measurable residual disease in adult acute lymphoblastic leukemia.** *Blood advances*
Muffly, L., Sundaram, V., Chen, C., Yurkiewicz, I., Kuo, E., Burnash, S., Spiegel, J. Y., Arai, S., Frank, M. J., Johnston, L. J., Lowsky, R., Meyer, E. H., Negrin, et al
2021; 5 (16): 3147-3151
 - **CAR T cells with dual targeting of CD19 and CD22 in adult patients with recurrent or refractory B cell malignancies: a phase 1 trial.** *Nature medicine*
Spiegel, J. Y., Patel, S., Muffly, L., Hossain, N. M., Oak, J., Baird, J. H., Frank, M. J., Shiraz, P., Sahaf, B., Craig, J., Iglesias, M., Younes, S., Natkunam, et al
2021
 - **Outcomes after delayed and second autologous stem cell transplant in patients with relapsed multiple myeloma.** *Bone marrow transplantation*
Lemieux, C., Muffly, L. S., Iberri, D. J., Craig, J. K., Johnston, L. J., Lowsky, R., Shiraz, P., Rezvani, A. R., Frank, M. J., Weng, W., Meyer, E., Shizuru, J. A., Arai, et al
2021
 - **Inferior Clinical Outcomes in Recipients of Cryopreserved Grafts Following Reduced Intensity Allogeneic Hematopoietic Cell Transplantation: A Single Center Report**
Bankova, A., Caveney, J., Ramos, T., Bogeholz, J., Heydari, K., Diaz, N., Jackson, M., Lowsky, R., Brown, J., Johnston, L., Rezvani, A., Frank, M., Muffly, et al
SPRINGER NATURE.2021: 181
 - **Phase 2 study of MGTA-145+plerixafor for rapid and reliable hematopoietic stem cell (HSC) mobilization for autologous transplant in multiple myeloma.**

- Sidana, S., Bankova, A., Hosoya, H., Muffly, L. S., Kumar, S., Johnston, L. J., Lowsky, R., Meyer, E., Rezvani, A., Weng, W., Arai, S., Frank, M., Shiraz, et al
LIPPINCOTT WILLIAMS & WILKINS.2021
- **Adoptively Transferred, In Vitro-Generated Alloantigen-Specific Type 1 Regulatory T (Tr1) Cells Persist Long-Term In Vivo**
Cepika, A., Chen, P. P., Agarwal, R., Saini, G., Louis, D. M., Amaya-Hernandez, L. C., Xu, L., Shiraz, P., Tate, K. M., Margittai, D., Bhatia, N., Meyer, E., Bertaina, et al
CELL PRESS.2021: 73
 - **Stem Cell Mobilization in Multiple Myeloma: Comparing Safety and Efficacy of Cyclophosphamide +/- Plerixafor vs. G-CSF +/- Plerixafor in the Lenalidomide Era.** *Transplantation and cellular therapy*
Johnsrud, A., Ladha, A., Muffly, L., Shiraz, P., Goldstein, G., Osgood, V., Shizuru, J. A., Johnston, L., Arai, S., Weng, W., Lowsky, R., Rezvani, A. R., Meyer, et al
2021
 - **Use of Backup Stem Cells for Stem Cell Boost and Second Transplant in Patients with Multiple Myeloma Undergoing Autologous Stem Cell Transplantation.** *Transplantation and cellular therapy*
Liang, E. C., Muffly, L. S., Shiraz, P., Shizuru, J. A., Johnston, L., Arai, S., Frank, M. J., Weng, W., Lowsky, R., Rezvani, A., Meyer, E. H., Negrin, R., Miklos, et al
2021
 - **Immune reconstitution and infectious complications following axicabtagene ciloleucel therapy for large B-cell lymphoma.** *Blood advances*
Baird, J. H., Epstein, D. J., Tamaresis, J. S., Ehlinger, Z., Spiegel, J. Y., Craig, J., Claire, G. K., Frank, M. J., Muffly, L., Shiraz, P., Meyer, E., Arai, S., Brown, et al
2021; 5 (1): 143-155
 - **Immune reconstitution and infectious complications following axicabtagene ciloleucel therapy for large B-cell lymphoma** *BLOOD ADVANCES*
Baird, J. H., Epstein, D. J., Tamaresis, J. S., Ehlinger, Z., Spiegel, J. Y., Craig, J., Claire, G. K., Frank, M. J., Muffly, L., Shiraz, P., Meyer, E., Arai, S., Brown, et al
2021; 5 (1): 143–55
 - **Epstein-Barr virus-positive lymphoproliferative disorder manifesting as pulmonary disease in a patient with acute myeloid leukemia: a case report.** *Journal of medical case reports*
Dutta, R. n., Miao, S. Y., Phan, P. n., Fernandez-Pol, S. n., Shiraz, P. n., Ho, D. n., Mannis, G. N., Zhang, T. Y.
2021; 15 (1): 170
 - **Incidence and Risk Factors Associated with Bleeding and Thrombosis Following Chimeric Antigen Receptor T Cell Therapy.** *Blood advances*
Johnsrud, A. J., Craig, J., Baird, J. H., Spiegel, J. Y., Muffly, L., Zehnder, J. L., Tamaresis, J. S., Negrin, R. S., Johnston, L., Arai, S., Shizuru, J. A., Lowsky, R., Meyer, et al
2021
 - **Outcomes with Autologous or Allogeneic Stem Cell Transplantation in Patients with Plasma Cell Leukemia in the Era of Novel Agents.** *Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation*
Lemieux, C., Johnston, L. J., Lowsky, R., Muffly, L. S., Craig, J. K., Shiraz, P., Rezvani, A., Frank, M. J., Weng, W., Meyer, E., Shizuru, J., Arai, S., Negrin, et al
2020
 - **Autologous stem cell transplantation versus no transplant in patients above 70 with multiple myeloma.**
Lemieux, C., Muffly, L. S., Iberri, D., Rezvani, A., Lowsky, R., Frank, M., Craig, J. K., Liedtke, M., Negrin, R., Weng, W., Meyer, E., Johnston, L. J., Shizuru, et al
LIPPINCOTT WILLIAMS & WILKINS.2020
 - **Impact of proteasome inhibitor vs. IMiD maintenance therapy on outcomes of patients with high-risk multiple myeloma (HRMM).**
Tam, E., Iberri, D., Liedtke, M., Muffly, L. S., Shiraz, P., Frank, M., Lowsky, R., Rezvani, A., Negrin, R., Meyer, E., Arai, S., Johnston, L. J., Shizuru, et al
LIPPINCOTT WILLIAMS & WILKINS.2020
 - **The Current Genomic and Molecular Landscape of Philadelphia-like Acute Lymphoblastic Leukemia.** *International journal of molecular sciences*
Shiraz, P., Payne, K. J., Muffly, L.

2020; 21 (6)

- **Allogeneic Hematopoietic Cell Transplantation for Adult Acute Lymphoblastic Leukemia: Significant Increase in Survival in the Post-Targeted Immunotherapy Era**
Muffy, L., Arai, S., Johnston, L., Lowsky, R., Meyer, E. H., Miklos, D. B., Negrin, R. S., Rezvani, A., Shiraz, P., Shizuru, J. A., Sidana, S., Weng, W., Cunanan, et al
ELSEVIER SCIENCE INC.2020: S106
- **Regulatory Type 1 T Cell Infusion in Mismatched Related or Unrelated Hematopoietic Stem Cell Transplantation (HSCT) for Hematologic Malignancies**
Agarwal, R., Bacchetta, R., Bertaina, A., Chen, P., Saini, G., Shiraz, P., Bhatia, N., Roncarolo, M.
ELSEVIER SCIENCE INC.2020: S272–S273
- **Outcomes with autologous stem cell transplant vs. non-transplant therapy in patients 70 years and older with multiple myeloma. *Bone marrow transplantation***
Lemieux, C. n., Muffy, L. S., Rezvani, A. n., Lowsky, R. n., Iberri, D. J., Craig, J. K., Frank, M. J., Johnston, L. J., Liedtke, M. n., Negrin, R. n., Weng, W. K., Meyer, E. n., Shizuru, et al
2020
- **CD22-Directed CAR T-Cell Therapy Induces Complete Remissions in CD19-Directed CAR-Refractory Large B-Cell Lymphoma. *Blood***
Baird, J. H., Frank, M. J., Craig, J. n., Patel, S. n., Spiegel, J. Y., Sahaf, B. n., Oak, J. S., Younes, S. n., Ozawa, M. n., Yang, E. n., Natkunam, Y. n., Tamaresis, J. S., Ehlinger, et al
2020
- **Advance Directive Utilization is Associated with Less Aggressive End-of-Life Care in Patients Undergoing Allogeneic Hematopoietic Cell Transplantation. *Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation***
Cappell, K. n., Sundaram, V. n., Park, A. n., Shiraz, P. n., Gupta, R. n., Jenkins, P. n., Periyakoil, V. S., Muffy, L. n.
2018
- **Pharmacologic maintenance strategies following allogeneic hematopoietic cell transplantation for acute myeloid leukemia. *Leukemia & lymphoma***
Lee, C. J., Shiraz, P., Muffy, L.
2017; 58 (3): 516-527
- **Adoption of Pediatric-Inspired Acute Lymphoblastic Leukemia Regimens by Adult Oncologists Treating Adolescents and Young Adults: A Population-Based Study *CANCER***
Muffy, L., Lichtensztajn, D., Shiraz, P., Abrahao, R., McNeer, J., Stock, W., Keegan, T., Gomez, S. L.
2017; 123 (1): 122-130
- **Rate of Rise of EBV Viral Load By Quantitative PCR after Allogeneic Transplantation Correlates with PTLD Facilitates Timely Institution of Rituximab**
Muffy, L. S., Shiraz, P., Nguyen, I. T., Brown, J. M.
AMER SOC HEMATOLOGY.2016
- **Adoption of pediatric-inspired acute lymphoblastic leukemia regimens by adult oncologists treating adolescents and young adults: A population-based study. *Cancer***
Muffy, L., Lichtensztajn, D., Shiraz, P., Abrahão, R., McNeer, J., Stock, W., Keegan, T., Gomez, S. L.
2016

PRESENTATIONS

- Targeted Immunotherapy Conditioning for Stem Cell Transplantation - University of Southern California Hematology Grand Rounds (2/2/2024 - 2/2/2024)
- Advances in Hematopoietic Stem Cell Transplantation - Graft Engineering - Loma Linda University (8/4/2021 - 8/4/2021)