Stanford

Robertson Parkman

Other Teaching Staff-Hourly, Pediatrics - Stem Cell Transplantation

Curriculum Vitae available Online

Bio

BIO

My principal research interests have been the assessment of the immunological consequences of hematopoietic stem cell transplantation including both acute and chronic graft versus host disease and immune reconstitution and the use of hematopoietic stem cell transplantation to treat genetic diseases. My laboratory was the first to suggest that chronic graft versus host disease was an autoimmune disease directed at histocompatibility antigens shared by donors and recipients. The observation leaded to the assessment of the role of thymic dysfunction in the pathogenesis of chronic graft versus host disease. As a pediatric immunologist I have investigated the role of hematopoietic stem cell transplantation initially in the treatment of primary immune deficiency diseases and later the treatment of metabolic diseases, which lead to my involvement in the early gene transfer clinical trials.

ACADEMIC APPOINTMENTS

- Other Teaching Staff-Hourly, Pediatrics - Stem Cell Transplantation

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chairperson, Data Safety Monitoring Board for Cell and Gene Therapy, National Heart, Lung and Blood Institute (2002 - present)

Publications

PUBLICATIONS

- **Can we eliminate TBI/Busulfan and GVHD in Fanconi anemia transplantation? Results from a prospective haploidentical transplant approach**

  Bertaina, A., Czechowicz, A., Hiroshima, L., Kunte, N., Klinger, E., Saini, G., John, T., Alexander, J., Shyr, D., Shah, A., Klein, O., Boyel, J., Boelens, et al

  SPRINGERNATURE.2026: 122-123

- **DISTINCT IMMUNE RECONSTITUTION PATTERNS CORRELATE WITH OUTCOMES FOLLOWING PEDIATRIC AB T-CELL/CD19 B-CELL DEPLETED HAPLOIDENTICAL HSCT**

  Oppizzi, L., Barbarito, G., Limaye, A., Chang, I., Yuan, M., Weinberg, K., Parkman, R., Bertaina, A.

  SPRINGERNATURE.2025: 670-671

- **PROTECTIVE ROLE OF NAIVE VD2 GD T-CELL AGAINST RELAPSE IN ABHAPLO-HSCT**

  Barbarito, G., Louis, D. M., Oppizzi, L., Chang, I., Yuan, M., Takeda, S., Parkman, R., Bertaina, A.

  SPRINGERNATURE.2025: 667-668

- **Hematopoietic stem cell transplantation using briquilimab (Anti-CD117 Antibody-Conditioning), immunosuppression and TCRαβ+ T-cell/ CD19+B-cell depleted haploidentical grafts in patients with fanconi anemia: An approach without irradiation, busulfan and calcineurin inhibitors.**

  Agarwal, R., Bertaina, A., Soco, C., Long-Boyle, J., Saini, G., Kunte, N., Hiroshima, L., Chan, Y., Willner, H., Krampf, M., Van Hentenryck, M., Perriman, R., Istomina, et al

  ELSEVIER.2025: 2432-2433

- **Irradiation- and busulfan-free stem cell transplantation in Fanconi anemia using an anti-CD117 antibody: a phase 1b trial.** *Nature medicine*

Agarwal, R., Bertaina, A., Soco, C., Long-Boyle, J. R., Saini, G., Kunte, N., Hiroshima, L., Chan, Y. Y., Willner, H., Krampf, M. R., Nofal, R., Barbarito, G., Sen, et al

2025

- **Evaluation of Bone Marrow in Fanconi Anemia Patients Treated with Briquilimab Antibody-Based Conditioning and TCRαβ⁺ T-Cell/CD19⁺ B-Cell Depleted Haploidentical Grafts**

  Soco, C., Krampf, M. R., Chan, Y., Hoang, H., Kunte, N., Saini, G., Weinberg, K. I., Parkman, R., Bertaina, A., Agarwal, R., Porteus, M., Czechowicz, A. D.

  ELSEVIER.2024: 2015-2016

- **Radiation and Busulfan-Free Hematopoietic Stem Cell Transplantation Using Briquilimab (JSP191) Anti-CD117 Antibody-Conditioning, Transient Immunosuppression and TCR α β + T-Cell/CD19+B-Cell Depleted Haploidentical Grafts in Patients with Fanconi Anemia**

  Agarwal, R., Bertaina, A., Soco, C., Saini, G., Kunte, N., Hiroshima, L., Chan, Y., Willner, H., Krampf, M. L., Nofal, R., Barbarito, G., Sen, S., Felber, et al

  AMER SOC HEMATOLOGY.2023

- **Targeting of CD25+Activated T Cells in Gvhd-Associated Marrow Suppression and Cytopenias**

  John, T. D., Valine, L., Barbarito, G., Kwon, H., Arai, S., Martin-Kool, B., Kumari, R., Shizuru, J., Oak, J. S., Parkman, R., Bertaina, A., Weinberg, K. I.

  AMER SOC HEMATOLOGY.2023

- **Caring for Transplanted Children and Their Families.** *Transplantation and cellular therapy*

  Parkman, R.

  2023; 29 (10): 585-586

- **Sequential Stem Cell-Kidney Transplantation in Schimke Immuno-osseous Dysplasia.** *The New England journal of medicine*

  Bertaina, A., Grimm, P. C., Weinberg, K., Parkman, R., Kristovich, K. M., Barbarito, G., Lippner, E., Dhamdhere, G., Ramachandran, V., Spatz, J. M., Fathallah-Shaykh, S., Atkinson, T. P., Al-Uzri, et al

  2022; 386 (24): 2295-2302

- **Role of Cytokine Secretion Signatures of Donor-derived T Cells and Recipient Serum Cytokine Profiles as Predictive Biomarkers of Acute Graft-Versus-Host Disease in alpha beta T-cell/CD19 B-cell Depleted Hematopoietic Stem Cell Transplant Pediatric Recipients**

  Montiel-Esparza, R., Barbarito, G., Patil, R., Shyr, D., Saini, G., Parkman, R., Liu, Y., Bertaina, A.

  WILEY.2022

- **POTENTIAL BIOMARKERS OF ACUTE GVHD IN ALPHA/BETA T-CELL/B-CELL DEPLETED HSCT PEDIATRIC RECIPIENTS**

  Montiel-Esparza, R., Barbarito, G., Patil, R., Parkman, R., Liu, Y., Bertaina, A.

  WILEY.2022

- **Functional Immune Tolerance Induced By Sequential Hematopoietic Stem Cell-Solid Organ Transplantation**

  Bertaina, A., Barbarito, G., Ramachandran, V. V., Kristovich, K., Lippner, E., Fathallah-Shaykh, S., Al-Uzri, A., Shah, A. J., Aubert, G., Slepicka, P., Oppizzi, L., Agarwal, R., Roncarolo, et al

  AMER SOC HEMATOLOGY.2021: 1818-+

- **JSP191 As a Single-Agent Conditioning Regimen Results in Successful Engraftment, Donor Myeloid Chimerism, and Production of Donor Derived Naive Lymphocytes in Patients with Severe Combined Immunodeficiency (SCID)**

  Agarwa, R., Dvorak, C. C., Prockop, S., Kwon, H., Long-Boyle, J. R., Le, A., Brown, J. W., Merkel, E., Truong, K., Velasco, B., Arulprakasam, K., Harada, N., Dougall, et al

  AMER SOC HEMATOLOGY.2021

- **The Determinative Role of Hematopoietic Stem and Progenitor Cell Graft Composition on the Engraftment Kinetics after HSCT**

  Barbarito, G., Dejene, B., Saini, G., Patil, R., Shyr, D. C., Parkman, R., Bertaina, A., Weinberg, K. I.

  AMER SOC HEMATOLOGY.2021: 1794-+

- **Combinatorial Cytokine Secretion Signature of Donor-Derived T Cells Infused with the Graft: A New Potential Biomarker of Acute Graft-Versus-Host Disease in.ss t-Cell/CD19 B-Cell Depleted Hematopoietic Stem Cell Transplant Recipients**

  Montiel-Esparza, R., Barbarito, G., Peck, S., Bazzano, M., Patil, R., Shyr, D. C., Saini, G., Parkman, R., Liu, Y., Bertaina, A.

  AMER SOC HEMATOLOGY.2021

- **The Biology of Chronic Graft-versus-Host Disease: A Task Force Report from the National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-versus-Host Disease** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*

  Cooke, K. R., Luznik, L., Sarantopoulos, S., Hakim, F. T., Jagasia, M., Fowler, D. H., van den Brink, M. R., Hansen, J. A., Parkman, R., Miklos, D. B., Martin, P. J., paczesny, s., Vogelsang, et al

2017; 23 (2): 211-234

- **The Biology of Chronic Graft-Versus-Host Disease: a Task Force Report From the National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-Versus-Host Disease.** *Biology of blood and marrow transplantation*
  Cooke, K. R., Luznik, L., Sarantopoulos, S., Hakim, F. T., Jagasia, M., Fowler, D. H., van den Brink, M. R., Hansen, J. A., Parkman, R., Miklos, D. B., Martin, P. J., paczesny, s., Vogelsang, et al
  2016

- **National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-versus-Host Disease: III. The 2014 Biomarker Working Group Report** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Paczesny, S., Hakim, F. T., Pidala, J., Cooke, K. R., Lathrop, J., Griffith, L. M., Hansen, J., Jagasia, M., Miklos, D., Pavletic, S., Parkman, R., Russek-Cohen, E., Flowers, et al
  2015; 21 (5): 780-792

- **Primary Immune Deficiency Treatment Consortium (PIDTC) report.** *journal of allergy and clinical immunology*
  Griffith, L. M., Cowan, M. J., Notarangelo, L. D., Kohn, D. B., Puck, J. M., Pai, S., Ballard, B., Bauer, S. C., Bleesing, J. J., Boyle, M., Brower, A., Buckley, R. H., van der Burg, et al
  2014; 133 (2): 335-347 e11

- **Primary Immune Deficiency Treatment Consortium (PIDTC) report.** *journal of allergy and clinical immunology*
  Griffith, L. M., Cowan, M. J., Notarangelo, L. D., Kohn, D. B., Puck, J. M., Pai, S., Ballard, B., Bauer, S. C., Bleesing, J. J., Boyle, M., Brower, A., Buckley, R. H., van der Burg, et al
  2014; 133 (2): 335-347

- **T lymphocyte abnormalities in juvenile systemic sclerosis patients** *CLINICAL IMMUNOLOGY*
  Reiff, A., Weinberg, K. I., Triche, T., Masinsin, B., Mahadeo, K. M., Lin, C., Brown, D., Parkman, R.
  2013; 149 (1): 146-155

- **Gene therapy for adenosine deaminase-deficient severe combined immune deficiency: clinical comparison of retroviral vectors and treatment plans** *BLOOD*
  Candotti, F., Shaw, K. L., Muul, L., Carbonaro, D., Sokolic, R., Choi, C., Schurman, S. H., Garabedian, E., Kesserwan, C., Jagadeesh, G. J., Fu, P., Gschweng, E., Cooper, et al
  2012; 120 (18): 3635-3646

- **Anti-CD52 Antibody-Mediated Immune Ablation with Autologous Immune Recovery for the Treatment of Refractory Juvenile Polymyositis** *JOURNAL OF CLINICAL IMMUNOLOGY*
  Reiff, A., Shaham, B., Weinberg, K. I., Crooks, G. M., Parkman, R.
  2011; 31 (4): 615-622

- **Study of thymic size and function in children and adolescents with treatment refractory systemic sclerosis eligible for immunoablative therapy** *CLINICAL IMMUNOLOGY*
  Reiff, A., Krogstad, P., Moore, S., Shaham, B., Parkman, R., Kitchen, C., Weinberg, K.
  2009; 133 (3): 295-302

- **Progressive declines in neurocognitive function among survivors of hematopoietic stem cell transplantation for pediatric hematologic malignancies** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Shah, A. J., Epport, K., Azen, C., Killen, R., Wilson, K., De Clerck, D., Crooks, G., Kapoor, N., Kohn, D. B., Parkman, R., Weinberg, K. I.
  2008; 30 (6): 411-418

- **The effects of Campath 1H upon graft-versus-host disease, infection, relapse, and immune reconstitution in recipients of pediatric unrelated transplants** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Shah, A. J., Kapoor, N., Crooks, G. M., Weinberg, K. I., Azim, H. A., Killen, R., Kuo, L., Rushing, T., Kohn, D. B., Parkman, R.
  2007; 13 (5): 584-593