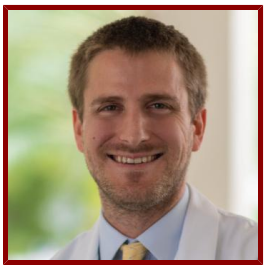
Stanford



Cameron Scott Bader

Postdoctoral Scholar, Bone Marrow Transplantation

Bio

BIO

My research is focused on using preclinical models to develop novel therapies which improve outcomes for patients receiving allogeneic hematopoietic stem cell transplantation. Currently, my work aims to establish strategies to reduce the risk of relapse after allogeneic hematopoietic stem cell transplantation without exacerbating graft-versus-host disease or interfering with donor stem cell engraftment.

HONORS AND AWARDS

- Graduate Student Best Research Award 1st Place Winner, University of Miami Miller School of Medicine (2020)
- F99/K00 Predoctoral to Postdoctoral Fellow Transition Award, National Cancer Institute (2019-2025)
- Academic Excellence, Leadership, and Service Award, University of Miami Graduate Student Association (2019)
- Graduate Student Best Research Award 3rd Place Winner, University of Miami Miller School of Medicine (2019)
- F31 Predoctoral Fellowship, National Cancer Institute (2018-2019)
- Abstract Achievement Award, American Society of Hematology (2017, 2018, 2019)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Miami (2021)
- Bachelor of Science, University of California Irvine (2013)
- PhD, University of Miami Miller School of Medicine , Immunology (2021)
- BS, University of California, Irvine , Biological Sciences (2013)

STANFORD ADVISORS

- Everett Meyer, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Mobilized Mouse and Human Peripheral Blood Containing Elevated Numbers of Donor Treg Cells Ameliorates Pre-Clinical GvHD and GVL Is Maintained in an MHC-Matched Allogeneic Murine Model**
  Barreras, H., Copsel, S. N., Ding, Y., Cash, C. J., Bader, C. S., Benjamin, C. L., Komanduri, K. V., Malek, T. R., Levy, R. B.
  AMER SOC HEMATOLOGY.2021

- **Use of Post-transplant Cyclophosphamide Treatment to Build a Tolerance Platform to Prevent Liquid and Solid Organ Allograft Rejection.** *Frontiers in immunology*
  Lightbourn, C. O., Wolf, D., Copsel, S. N., Wang, Y., Pfeiffer, B. J., Barreras, H., Bader, C. S., Komanduri, K. V., Perez, V. L., Levy, R. B.
  2021; 12: 636789

- **STING and transplantation: can targeting this pathway improve outcomes?** *Blood*
  Bader, C. S., Jin, L., Levy, R. B.
  2021; 137 (14): 1871-1878

- **TNFRSF25 and CD25 Stimulation Expands Tregs and ILC2s in the GI Tract: Recipient Modulation Pre-HSCT**
  Lightbourn, C. O., Copsel, S. N., Bader, C. S., Wolf, D., Banrreras, H., Levy, R. B.
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- **The Innate Immune Sensor Sting Promotes Donor CD8(+) T Cell Activation and Recipient APC Death Early after Preclinical Allogeneic Hematopoietic Stem Cell Transplantation**
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S. N., Wolf, D., Meng, J., Ahn, J., Komanduri, K. V., Blazar, B. R., Jin, L., Barber, G. N., Roy, S., Levy, et al
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- **IL-2/IL-2R, TL1A/TNFRSF25 or Their Combined Stimulation Results in Distinct CD4+FoxP3+Regulatory T Cell Phenotype and Suppressive Function**
  Copsel, S. N., Barreras, H., Lightbourn, C. O., Bader, C. S., Wolf, D., Kale, B., Alperstein, W., Komanduri, K. V., Levy, R. B.
  ELSEVIER SCIENCE INC.2020: S169

- **STING differentially regulates experimental GVHD mediated by CD8 versus CD4 T cell subsets.** *Science translational medicine*
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S. N., Wolf, D., Meng, J., Ahn, J., Komanduri, K. V., Blazar, B. R., Jin, L., Barber, G. N., Roy, S., Levy, et al
  2020; 12 (552)

- **The Location of CD4(+)FoxP3(+) Cells with Regard to CD25 and TNFRSF25 Receptor Signals Matters: Different Requirements for GI and Peripheral Tregs**
  Lightbourn, C. O., Lozano, C., Bader, C. S., Copsel, S. N., Wolf, D., Barreras, H., Levy, R. B.
  AMER SOC HEMATOLOGY.2019

- **Multiple Pathways Targeting CD25 or TNFRSF25 Affect CD4(+)FoxP3(+) Regulatory T Cell Phenotype and Suppressive Function**
  Copsel, S. N., Barreras, H., Lightbourn, C. O., Bader, C. S., Wolf, D., Kale, B., Alperstein, W., Komanduri, K. V., Levy, R. B.
  AMER SOC HEMATOLOGY.2019

- **The Innate Immune Sensor Sting Promotes Donor CD8(+) T Cell Activation and Recipient APC Death Early after Preclinical Allogeneic Hematopoietic Stem Cell Transplantation**
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S. N., Wolf, D., Meng, J., Ahn, J., Komanduri, K. V., Blazar, B. R., Jin, L., Barber, G. N., Roy, S., Levy, et al
  AMER SOC HEMATOLOGY.2019

- **Sequential Cyclophosphamide and Trametinib Improve Clinical Graft Versus Host Disease and Survival in Murine Hematopoietic Stem Cell Transplant**
  Nahas, G., Barreras, H., Bader, C. S., Copsel, S., Wolf, D., Kale, B., Levy, R. B., Komanduri, K. V.
  ELSEVIER SCIENCE INC.2019

- **The Innate Immune Sensor Sting Promotes CD8(+) T Cell-Mediated Gvhd after Preclinical Allogeneic Hematopoietic Stem Cell Transplantation**
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S., Meng, J., Ahn, J., Barber, G. N., Jin, L., Roy, S., Levy, R. B.
  ELSEVIER SCIENCE INC.2019

- **Development of a Concomitant Treg Expansion and Stem Cell Mobilization Protocol Which Enables Peripheral Blood Transplant Amelioration of Gvhd Following Pre-Clinical aHSCT**
  Barreras, H., Bader, C. S., Copsel, S., Kale, B., Pfeiffer, B. J., Lozano, C., Lightbourn, C. O., Jurecic, R., Levy, R. B.
  ELSEVIER SCIENCE INC.2019

- **Identification of a BET Bromodomain Inhibitor That Enables Treg Function: A Combinatorial Strategy to Inhibit GVHD**
  Copsel, S., Lightbourn, C. O., Barreras, H., Lohse, I., Wolf, D., Bader, C. S., Manov, J., Kale, B., Shah, D., Brothers, S., Perez, V. L., Komanduri, K. V., Wahlestedt, et al
  ELSEVIER SCIENCE INC.2019

- **The Innate Immune Sensor Sting Regulates Intestinal Inflammation and GVHD after Allogeneic Hematopoietic Stem Cell Transplantation in Knock-out and Human Allele Knock-in Recipient Mice**
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S., Ahn, J., Barber, G. N., Jin, L., Levy, R. B.
  AMER SOC HEMATOLOGY.2018

- **Use of Post-Transplant Cyclophosphamide Therapy in High Risk Corneal Graft Transplantation: A New Strategy to Prolong Corneal Allograft Survival**
  Levy, R., Lightbourn, C., Wang, Y., Bader, C., Copsel, S., Pfeiffer, B., Perez, V. L.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018

- **Extremely Low Numbers of Donor Expanded Regulatory T Cells Characterized by Expression of an Activated Phenotype Can Suppress Graft-Versus-Host Disease**
  Copsel, S., Wolf, D., Kale, B., Barreras, H., Lightbourn, C. O., Bader, C. S., Alperstein, W., Komanduri, K. V., Levy, R. B.
  ELSEVIER SCIENCE INC.2018: S170

- **The Innate Immune Sensor Sting Can Augment or Ameliorate Graft-Versus-Host Disease Dependent on the Genetic Disparity between Donors and Recipients**
  Bader, C. S., Barreras, H., Lightbourn, C. O., Copsel, S., Ahn, J., Barber, G. N., Levy, R. B.
  ELSEVIER SCIENCE INC.2018: S176-S177

- **Very Low Numbers of CD4+ FoxP3+ Tregs Expanded in Donors via TL1A-Ig and Low-Dose IL-2 Exhibit a Distinct Activation/Functional Profile and Suppress GVHD in a Preclinical Model.** *Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation*
  Copsel, S., Wolf, D., Kale, B., Barreras, H., Lightbourn, C. O., Bader, C. S., Alperstein, W., Altman, N. H., Komanduri, K. V., Levy, R. B.
  2018; 24 (9): 1788-1794

- **BET Bromodomain Inhibitors Which Permit Treg Function Enable a Combinatorial Strategy to Suppress GVHD in Pre-clinical Allogeneic HSCT.** *Frontiers in immunology*
  Copsel, S. N., Lightbourn, C. O., Barreras, H., Lohse, I., Wolf, D., Bader, C. S., Manov, J., Kale, B. J., Shah, D., Brothers, S. P., Perez, V. L., Komanduri, K. V., Wahlestedt, et al
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- **Superior immune reconstitution using Treg-expanded donor cells versus PTCy treatment in preclinical HSCT models.** *JCI insight*
  Wolf, D., Bader, C. S., Barreras, H., Copsel, S., Pfeiffer, B. J., Lightbourn, C. O., Altman, N. H., Komanduri, K. V., Levy, R. B.
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- **Epigenetic Regulation Together with Treg Expansion: A New Combinatorial Strategy for Application in Experimental Allogeneic HSCT**
  Copsel, S., Manov, J., Lightbourn, C. O., Barreras, H., Bader, C. S., Pfeiffer, B. J., Shah, D., Wolf, D., Komanduri, K. V., Wahlestedt, C., Levy, R. B.
  ELSEVIER SCIENCE INC.2017: S313-S314

- **Marked in Vivo Donor Regulatory T Cell Expansion via Interleukin-2 and TL1A-Ig Stimulation Ameliorates Graft-versus-Host Disease but Preserves Graft-versus-Leukemia in Recipients after Hematopoietic Stem Cell Transplantation.** *Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation*
  Wolf, D., Barreras, H., Bader, C. S., Copsel, S., Lightbourn, C. O., Pfeiffer, B. J., Altman, N. H., Podack, E. R., Komanduri, K. V., Levy, R. B.
  2017; 23 (5): 757-766

- **Marked In Vivo Expansion of Donor T Regulatory Cells Via Targeting of the IL-2/CD25 and TL1A/TNFRSF25 Pathways Elicits Gender Differences and Ameliorates Gvhd**
  Wolff, D., Barreras, H., Bader, C. S., Razdan, S., Lightbourn, C. O., Pfeiffer, B. J., Elliot, S., Podack, E. R., Komanduri, K. V., Levy, R. B.
  ELSEVIER SCIENCE INC.2016: S418

- **Targeting the IL-2/CD25 and TL1A/TNFRSF25 Pathways: A New Approach to Markedly Expand Donor Tregs in Multiple Compartments Leads to in Situ Immune Regulation**
  Wolf, D., Barreras, H., Bader, C. S., Lightbourn, C. O., Pfeiffer, B. J., Podack, E. R., Komanduri, K. V., Levy, R. B.
  AMER SOC HEMATOLOGY.2015