

**BRIAN GEORGE ENGELHARDT, M.D., M.S.C.I.**

Vanderbilt University Medical Center  
Division of Hematology/Oncology  
3927 The Vanderbilt Clinic  
1301 Medical Center Drive  
Nashville, TN 37232-5505  
Phone: 615-936-8422  
Fax: 615-936-1812  
e-mail: [brian.engelhardt@vanderbilt.edu](mailto:brian.engelhardt@vanderbilt.edu)

548 Littlestone Dr.  
Brentwood, TN 37027  
Phone: 615-891-1446  
Wife: Kimberly Engelhardt

**EDUCATION**

- University of Michigan, Ann Arbor, Michigan, Bachelor of Science, Biology; 5/96
- Case Western Reserve University, Cleveland, Ohio, Doctor of Medicine; 5/00
- Vanderbilt University, Nashville, Tennessee, Master of Science in Clinical Investigation; 5/08

**TRAINING**

- Laboratory Research Assistant, Division of Infectious Disease, Department of Medicine, Wayne State University School of Medicine, Detroit, Michigan, 1991 + 1994
- Laboratory Research Assistant, Division of Rheumatology, Department of Medicine, University of Michigan Medical Center, Ann Arbor, Michigan, 1995
- Clinical Research Assistant, Department of Orthopedic Surgery, Henry Ford Medical Center, Detroit, Michigan, 1997
- Intern / Resident, Department of Medicine, University of North Carolina, Chapel Hill, NC, 2000-2003
- Clinical Fellow, Division of Hematology/Oncology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee, 2003-2006

**LICENSURE/CERTIFICATION**

- Tennessee: 2006, M.D.; 040874
- North Carolina: 2002, M. D.; 200200026 (inactive)
- American Board of Internal Medicine: Internal Medicine, 8/03
- American Board of Internal Medicine: Hematology, 10/06

- American Board of Internal Medicine: Medical Oncology, 11/06

## **ACADEMIC APPOINTMENTS**

- Assistant Professor of Medicine, Vanderbilt University Medical Center, Department of Medicine, Nashville, Tennessee, 7/06-11/14
- Associate Professor of Medicine, Vanderbilt University Medical Center, Department of Medicine, Nashville, Tennessee, 11/14-present

## **HOSPITAL APPOINTMENTS**

- Vanderbilt University Medical Center, Division of Hematology/Oncology, Department of Medicine, Nashville, Tennessee, 7/06-present

## **PROFESSIONAL ORGANIZATIONS**

- American Society of Hematology
- American Society of Clinical Oncology
- Eastern Cooperative Oncology Group
- Vanderbilt-Ingram Cancer Center

## **PROFESSIONAL ACTIVITIES**

- Two clinics per week:
  - Hematology
  - Stem Cell Transplant
- Attending physician three-four months per year:
  - Malignant Hematology
  - Stem Cell Transplant
  - Benign Hematology

## **Honors and Awards**

- James B. Angell Scholar, 1995
- Selected participant at the University of Michigan Biological Station, Pelston, Michigan, 1995
- Class Honors, University of Michigan, Ann Arbor, 1996
- Phi Beta Kappa, Honor Society, 1996
- Graduated with high distinction from the University of Michigan, Ann Arbor, 1996
- Alpha Omega Alpha, Medical Honor Society, 2000
- National Institutes of Health Clinical Loan Repayment Program Awardee, 2006

- Five Star and Top Performer Award from Professional Research Consultants, 2009
- Five Star and Top Performer Award from Professional Research Consultants, 2010
- Five Star and Top Performer Award from Professional Research Consultants, 2011
- Five Star and Top Performer Award from Professional Research Consultants, 2012
- Five Star and Top Performer Award from Professional Research Consultants, 2013
- American Society of Hematology, 2013, Abstract Review Committee and Oral Session Moderator –Clinical GVHD and Immune Reconstitution

### **TEACHING ACTIVITIES**

- Coordinator – Benign Hematology Case Conference, 2005-2006
- SCT Didactic Training for Fellows Committee, 2010-present

### **OTHER ACTIVITIES**

- Volunteer, Pontiac General Hospital, Pontiac, Michigan, 1989
- Volunteer, Henry Ford Medical Center, West Bloomfield, Michigan, 1995

### **GRANT AWARDS:**

- Amgen Oncology Institute – Hematology/Oncology Fellowship grant (Graft-versus-Host Disease Prophylaxis with Tacrolimus and Mycophenolate Mofetil for Patients Undergoing Myeloablative or Reduced Intensity Double Umbilical Cord Blood Transplantation – Co-PI Dr. Brian Engelhardt). Total costs: \$40,000 , 7/1/05–6/30/05
- American Cancer Society Institutional Research Grant (Regulatory T Cells at Engraftment as Predictors of Acute Graft-versus-Host Disease Outcomes in Patients Undergoing Allogeneic Stem Cell Transplantation – PI: Dr. Brian Engelhardt). Total costs: \$15,000, 7/1/06–6/30/07
- National Institutes of Health Clinical Loan repayment Program (Regulatory T Cells at Engraftment as Predictors of Acute Graft-versus-Host Disease Outcomes in Patients Undergoing Allogeneic Stem Cell Transplantation – PI: Dr. Brian Engelhardt). Estimated total costs: \$45,753, 7/1/06-6/30/08
- M01 RR-00095 NCRR/NIH Vanderbilt Clinical Research Center, (Partial support of Regulatory T Cells at Engraftment as Predictors of Acute Graft-versus-Host Disease Outcomes in Patients Undergoing Allogeneic Stem Cell Transplantation PI: Dr. Brian Engelhardt) Total costs: \$16,770, 7/1/06-6/30/09

- NIH/NCI 2K12 CA09625-06 Vanderbilt Clinical Oncology Research Career Development Program –PI: Dr. Kenneth R. Hande Role: Junior Faculty trainee. Total costs: \$391,745, 7/1/06–6/30/11
- Vanderbilt University Medical Center Institutional Research Start-up (Exploring regulatory T cells in allogeneic stem cell transplant. To study the role of tissue-specific regulatory T cells in allogeneic stem cell transplant complications – PI: Dr. Brian Engelhardt) 7/1/11-6/30/14
- NIH/NHLBI 1K23HL122143-01A1 Metabolic and CD4+ T Cell Dysregulation in Post-Transplant Diabetes Mellitus –PI: Dr. Brian Engelhardt. Total costs: \$373,500, 7/1/14–6/30/17

## PUBLICATIONS:

### Original Investigations

1. **Engelhardt BG**, Holland DW, Brandt SJ, Chinratanalab W, Goodman SA, Greer JP, Jagasia MH, Kassim AA, Morgan DS, Ruffner KL, Schuening FG, Wolff S, Bitting R, Sulur P, Stein RS. High-dose chemotherapy followed by autologous stem cell transplantation for relapsed or refractory Hodgkin lymphoma: Prognostic features and outcomes. *Leuk Lymphoma* 48 (9): 1728-1735, 2007.
2. Jagasia MH, Giglia J, Chinratanalab W, Dixon S, Chen H, Frangoul H, **Engelhardt BG**, Goodman SA, Greer JP, Kassim AA, Morgan D, Ruffner K, Schuening F. Incidence and outcome of chronic graft-versus-host disease using National Institutes of Health consensus criteria. *Biol Blood Marrow Transplant* 13 (10): 1207-1215, 2007.
3. Jagasia MH, Savani BN, Stricklin G, **Engelhardt BG**, Kassim AA, Dixon S, Chen H, Chinratanalab W, Goodman SA, Greer JP, Schuening F. Classic and overlap chronic Graft-versus-Host Disease (cGVHD) is associated with superior outcome after extracorporeal photopheresis (ECP). *Biol Blood Marrow Transplant* 15 (10): 1288-1295, 2009. PMID: PMC3159406
4. Savani BN, Pohlmann PR, Jagasia M, Chinratanalab W, Kassim AA, **Engelhardt BG**, Greer JP, Schuening F, Goodman SA. Does peritransplantation use of rituximab reduce the risk of EBV reactivation and PTLPD? *Blood* 113 (24): 6263-6264, 2009.
5. Tedeschi SK, Savani BN, Jagasia M, **Engelhardt BG**, Anasetti C, Barrett AJ, Lee S. Time to consider HPV vaccination after allogeneic stem cell transplantation. *Biol Blood Marrow Transplant* 16 (8): 1033-1036, 2010. PMID: PMC3750708
6. **Engelhardt BG**, Crowe, Jr. JE. Homing in on acute graft-versus-host disease: Tissue-specific T regulatory and Th17 cells. *Curr Top Microbiol Immunol*. 870:121-146, 2010. PMID: PMC3793903
7. Lucid CE, Savani BN, **Engelhardt BG**, Shah P, Clifton C, Greenhut SL, Vaughan LA, Kassim AA, Schuening F, Jagasia MH. Extracorporeal photopheresis in patients with refractory bronchiolitis obliterans developing after allo-SCT. *Bone Marrow Transplant* 46(3): 426-429, 2011. PMID: 20581885.

8. Tedeschi SK, Jagasia M, **Engelhardt BG**, Domm J, Kassim AA, Chinratanalab W, Grennhut SL, Goodman S, Greer JP, Schuening F, Frangoul H, Savani BN. Early lymphocyte reconstitution is associated with improved transplant outcome after cord blood transplantation. *Cytotherapy* 13(1): 78-82, 2011. PMID: 20586668.
9. Griffith ML, Jagasia MH, Misfeldt AA, Chen H, **Engelhardt BG**, Kassim AA, Savani BN, Survant M, Jagasia SM. Pre-transplant c-peptide level predicts early posttransplantation diabetes mellitus and has an impact on survival after allogeneic stem cell transplantation. *Biol Blood Marrow Transplant* 17(1): 86-92, 2011. PMID: 20561594.
10. **Engelhardt BG**, Jagasia M, Savani BN, Bratcher NL, Greer JP, Jiang A, Kassim AA, Lu P, Schuening F, Yoder SM, Rock MT, Crowe, Jr. JE. Regulatory T cell expression of CLA or  $\alpha_4\beta_7$  and skin or gut acute GVHD outcomes. *Bone Marrow Transplant* 46(3): 436-442, 2011. PMID: PMC3217583
11. Clark WB, Brown-Gentry KD, Crawford DC, Fan KH, Snavely J, Chen H, Savani BN, Kassim AA, Greer JP, Schuening FG, **Engelhardt BG**, Jagasia MH. Brief report: Genetic variation in recipient B-cell activating factor modulates phenotype of GVHD. *Blood* 118(4):1140-1144, 2011. PMID: 21628416.
12. Jagasia M, Clark WB, Brown-Gentry KD, Crawford DC, Fan KH, Chen H, Kassim A, Greer JP, **Engelhardt BG**, Savani BN. Genetic variation in donor CTLA-4 regulatory region is a strong predictor of outcome after allogeneic hematopoietic cell transplantation for hematologic malignancies. *Biol Blood Marrow Transplant*. 18(7): 1069-1075, 2012. PMID: 22178694.
13. **Engelhardt BG**, Jagasia SM, Crowe JE Jr, Griffith ML, Savani BN, Kassim AA, Lu P, Weitkamp JH, Moore DJ, Yoder SM, Rock MT, Jagasia M. Predicting posttransplantation diabetes mellitus by regulatory T-cell phenotype: Implications for metabolic intervention to modulate alloreactivity. *Blood* 119(10): 2417-2421, 2012. PMID: PMC3311262
14. Jacobs R, Tran U, Chen H, Kassim A, **Engelhardt BG**, Greer JP, Goodman SG, Clifton C, Lucid C, Vaughan LA, Savani BN, Jagasia M. Prevalence and risk factors associated with development of ocular GVHD defined by NIH consensus criteria. *Bone Marrow Transplant*. 47 (11): 1470-1473, 2012. PMID: 22484321.
15. Reddy N, Greer JP, Goodman S, Kassim A, Morgan D, Chinratanalab W, Brandt S, **Engelhardt B**, Oluwole O, Jagasia MH, Savani BN. Consolidative therapy with stem cell transplantation improves survival of patients with mantle cell lymphoma after any induction regimen. *Exp Hematol*. 40(5): 359-366, 2012. PMID: 22269117.
16. Chinratanalab W, Reddy N, Greer JP, Morgan D, **Engelhardt B**, Kassim A, Brandt SJ, Jagasia M, Goodman S, Savani BN. Immunomodulatory nonablative conditioning regimen for B-cell lymphoid malignancies. *Exp Hematol*. 40(6): 431-435, 2012. PMID: PMC4067702
17. Reddy N, Greer JP, Goodman S, **Engelhardt B**, Oluwole O, Jagasia MH, Savani BN. Long-term outcome after autologous or allogeneic stem cell transplantation in patients with recurrent follicular lymphoma. *Bone Marrow Transplantation*. 47:1318-1320, 2012. PMID: 22327132.

18. Sengsayadeth SM, Jagasia M, **Engelhardt BG**, Kassim A, Strickland SA, Goodman S, Lucid C, Vnencak-Jones CL, Greer JP, Savani BN. Allogeneic stem cell transplantation for high-risk acute myeloid leukemia-CR1 in the molecular era: Impact of FLT3/ITD outweighs the conventional markers. *Bone Marrow Transplant.* 47(12):1535-1537, 2012. PMID: 22659680.
19. Reddy N, Oluwole O, Greer JP, Goodman S, **Engelhardt B**, Jagasia MH, Savani BN. Superior long-term outcome of patients with early transformation of non-Hodgkin lymphoma undergoing stem cell transplantation. *Clin Lymphoma Myeloma Leuk.* 12(6):406-411, 2012. PMID: 22981964.
20. **Engelhardt BG**, Sengsayadeth SM, Jagasia M, Savani BN, Kassim AA, Lu P, Shyr Y, Yoder SM, Rock MT, Crowe JE. Tissue-specific regulatory T cells: biomarker for acute graft-vs-host disease and survival. *Exp Hematol.* 40(12):974-982, 2012. PMCID: PMC3611587
21. Jagasia M, Greinix H, Robin M, Das-Gupta E, Jacobs R, Savani BN, **Engelhardt BG**, Kassim A, Worel N, Knobler R, Russell N, Socie G. Extracorporeal photopheresis versus anticytokine therapy as a second-line treatment for steroid refractory acute GVHD: A multicenter comparative analysis. *Biol Blood Marrow Transplant.* Jul;19(7):1129-1133, 2013. PMID: 23623892.
22. Weitkamp JH, Koyama T, Rock MT, Correa H, Goettel JA, Matta P, Oswald-Richter K, Rosen MJ, **Engelhardt BG**, Moore DJ, Polk DB. Necrotising enterocolitis is characterized by disrupted immune regulation and diminished mucosal regulatory (FOXP3) effector (CD4, CD8) T cell ratios. *Gut.* 62 (1): 73-82, 2013. PMCID: PMC3606820
23. Vaughan LA, Vu M, Sengsayadeth S, Lucid C, Clifton C, McCarty K, Hagaman D, Domm J, Kassim A, Chinratanalab W, Goodman S, Greer J, Frangoul H, **Engelhardt BG**, Jagasia M, Savani BN. New allergies after cord transplantation. *Cytotherapy.* Oct;15(10):1259-1265, 2013. PMID: 23993300.
24. Reddy NM, Oluwole O, Greer JP, **Engelhardt BG**, Jagasia MH, Savani BN. Outcomes of Autologous or Allogeneic Stem Cell Transplantation for Non-Hodgkin Lymphoma. *Exp Hematol.* Jan; 42(1): 39-45, 2014. PMID: 24096123.
25. Ragon BK, Clifton C, Chen H, Savani BN, **Engelhardt BG**, Kassim AA, Vaughan LA, Lucid C, Jagasia M. Geographic Distance is Not Associated with Inferior Outcome when Utilizing Long Term Transplant Clinic Strategy. *Biol Blood Marrow Transplant.* Jan; 20(1): 53-57, 2014. PMID: 24120525.
26. Sengsayadeth S, Savani BN, Jagasia M, Goodman S, Greer JP, Chen H, Chinratanalab W, Kassim AA, **Engelhardt BG**. Six-month freedom from treatment failure is an important end point for acute GVHD clinical trials. *Bone Marrow Transplant.* Feb; 49(2): 236-240, 2014. PMCID: PMC3946331
27. **Engelhardt BG**, Crowe JE. Exposure to family members: infections and recent live vaccinations. "Blood and Marrow Transplantation Long Term Management". 1<sup>st</sup> Edition. 2013 (*in press*)
28. Das-Gupta E, Greinix H, Jacobs R, Zhou L, Savani BN, **Engelhardt BG**, Kassim A, Worel N, Knobler R, Russell N, Jagasia M. Extracorporeal photopheresis as

- second-line treatment for acute graft-versus-host disease: Impact on six month freedom from treatment failure. *Haematologica*. Nov; 99(11):1746-1752, 2014. PMID: PMC4222474
29. **Engelhardt BG**, Paczesny S, Jung DK, Daguindau E, Jagasia M, Savani BN, Chinratanalab W, Cornell RF, Goodman S, Greer JP, Kassim AA, Sengsayadeth S, Yoder SM, Rock MT, Crowe JE Jr., Early Th1 immunity promotes immune tolerance and may impair graft-versus-leukemia effect after allogeneic hematopoietic cell transplantation, *Haematologica*. 2016 (Epub ahead of print) PMID: 26819055
  30. Fuji S, Rovó A, Ohashi K, Griffith M, Einsele H, Kapp M, Mohty M, Majhail NS, **Engelhardt BG**, Tichelli A, Savani BN. How do I manage hyperglycemia/post-transplant diabetes mellitus after allogeneic HSCT. *Bone Marrow Transplant*. 2016. (Epub ahead of print) PMID: 27042848

## Abstracts

1. **Engelhardt BG**, Serody J, Gabriel D, Kirby S, Wiley J, Bigelow S, Harvey D, Moore D, Gilligan P, Banderenko N, Shea T. Use of Prophylactic Ganciclovir (G) and CMV antigen (Ag) screening in allogeneic transplant patients (Pts) receiving high-dose steroids (HDS). Abstracts from the American Society of Hematology 2002.
2. **Engelhardt BG**, Greer JP, Johnson J, Kassim AA, Milstone A, Mineishi S, Ninan M, Schuening F, Jagasia MH. Open lung biopsy to diagnose pulmonary complications (PC) after high dose chemotherapy (HDC) and allogeneic stem cell transplant (ASCT). Annual Meeting Proceedings of the American Society of Clinical Oncology, vol 23, p 592A, 2004.
3. Holland D, **Engelhardt BG**, Goodman SA, Greer JP, Morgan DS, Schuening FG, Wolff S, Bitting R, Suler P, Stein RS. High dose chemotherapy (HDT) followed by autologous stem cell transplantation (ASCT) for relapsed or refractory Hodgkin's lymphoma (HL). Annual Meeting Proceedings of the American Society of Clinical Oncology, vol 24, p 434s, 2006.
4. Jagasia MH, Giglia J, Chinratanalab W, Chen H, Dixon S, Frangoul H, **Engelhardt BG**, Goodman SA, Greer J, Kassim AA, Morgan D, Ruffner K, Schuening S. Incidence and outcome of chronic graft-versus-host disease (cGvHD) using National Institute of Health (NIH) criteria. *Blood (ASH Annual Meeting Abstracts)* 108: 2884, 2006.
5. Strickland SA, Chen H, Hunt C, Chinratanalab W, **Engelhardt BG**, Goodman SA, Greer JP, Kassim AA, Morgan D, Ruffner K, Schuening F, Jagasia MH. Nucleated cell (NC) dose of autologous (Auto) marrow graft is not predictive of engraftment after auto-bone marrow transplant (auto-BMT) following failed peripheral blood stem cell (PBSC) mobilization. *Blood (ASH Annual Meeting Abstracts)* 108: 5454, 2006.

6. Strickland SA, Chen H, Hunt C, Chinratanalab W, **Engelhardt BG**, Goodman SA, Greer JP, Kassim AA, Morgan D, Ruffner K, Schuening F, Jagasia MH. Poor outcome of autologous-bone marrow transplant (auto-BMT) following failed peripheral blood stem cell (PBSC) mobilization. *Biol Blood Marrow Transplantation* 13(2 suppl. 2): 103, 2007.
7. Jagasia MH, Chinratanalab W, Giglia J, Dixon S, Chen H, **Engelhardt BG**, Goodman SA. Incidence and outcome of chronic graft -versus-host disease (cGVHD) after stem cell transplant (SCT) using National Institute of Health (NIH) consensus criteria. *Biol Blood Marrow Transplant* 13 (2 suppl. 1): 303, 2007.
8. Kassim AA, Jagasia M, Dixon S, Greer JP, Chinratanalab W, Stein R, Morgan D, **Engelhardt BG**, Ruffner K, Goodman SA, Schuening F. Improved outcome in patients with mantle cell lymphoma in first remission (CR1) after hematopoietic stem cell transplantation. *Biol Blood Marrow Transplant* 13 (2 suppl. 2): 147, 2007.
9. Ewing G, Giglia J, Vusirikala M, Yu Shyr F, Chinratanalab W, Ruffner K, Kassim A, Jagasia M, **Engelhardt BG**, Brandt S, Morgan D, Stein R, Greer JP, Schuening F, Goodman SA. CD34 dose and chronic graft versus host disease (cGVHD) affect survival in allogeneic peripheral blood stem cell transplantation (alloPBSCT) following non-myeloablative (NM) conditioning: the Vanderbilt University/Nashville VA SCT Program Experience. *Biol Blood Marrow Transplant* 13 (2 suppl. 2): 233, 2007.
10. **Engelhardt BG**, Jagasia M, Rock MT, Bratcher NL, Greer JP, Jiang A, Kassim AA, Lu P, Schuening F, Crowe, Jr. JE. Circulating gut- or skin-homing regulatory t cells (Tregs) predict whether acute graft-versus-host disease (aGVHD) occurs in gut or skin following allogeneic stem cell transplantation (ASCT). *Blood (ASH Annual Meeting Abstracts)* 112: 717, 2008.
11. Jagasia MH, Mehrotra S, Singh V, Kassim AA, **Engelhardt BG**, Dixon, S, Tran U. Risk factors and survival analyses of ocular graft-versus-host disease (GVHD) in the current era of allogeneic stem cell transplant (SCT). *Blood (ASH Annual Meeting Abstracts)* 112: 2200, 2008.
12. **Engelhardt BG**, Jagasia MH, Rock MT, Kassim AA, Savani BN, Schuening F, Crowe JE.  $\alpha_4\beta_7$  regulatory t cells (Tregs) at engraftment predict long-term Graft-Versus-Host Disease (GVHD) outcomes. *Blood (ASH Annual Meeting Abstracts)* 114: 2237, 2009.
13. Clifton C, Vaughan LA, Lucid C, Sims S, **Engelhardt BG**, Chinratanalab W, Kassim AA, Goodman SA, Greer JP, Schuening F, Jagasia MH, Savani BN. Vaccinations efficacy in long term survivors after allogeneic stem cell transplantation: Implication of repeat vaccinations and documenting vaccination efficacy. *Blood (ASH Annual Meeting Abstracts)* 114: 3330, 2009.
14. Tedeschi SK, **Engelhardt BG**, Khalaf W, Tracy J, Domm J, Chinratanalab W, Kassim AA, Goodman SA, Greer JP, Schuening F, Jagasia M, Frangoul H, Savani BN. Impact of early lymphocyte recovery on transplant outcome after cord blood transplantation. *Blood (ASH Annual Meeting Abstracts)* 114: 3386, 2009.
15. Stover DG, Reddy VK, Greer JP, Jagasia MH, Morgan D, **Engelhardt BG**, Kassim AA, Goodman SA, Hunt C, Schuening F, Savani BN, Reddy N.



- Autologous stem cell transplant in recurrent diffuse large b-cell lymphoma: Prior rituximab therapy has no impact on early lymphocyte recovery and transplant outcome. *Blood (ASH Annual Meeting Abstracts)* 114: 3407, 2009.
16. Lucid C, **Engelhardt B**, Shah P, Clifton C, Vaughan LA, Kassim A, Goodman S, Schuening F, Jagasia M, Savani BN. Extracorporeal photopheresis in patients with bronchiolitis obliterans developing after allogeneic stem cell transplantation. *Biol Blood Marrow Transplantation* 16 (2 suppl. 2): S230, 2010.
  17. Clark W, Crawford D, **Engelhardt B**, Brown KD, Kang-Hsien F, Chen H, Savani BN, Schuening F, Greer JP, Kassim AA, Jagasia M. Genetic variation in recipient BAFF modulates phenotype of chronic GvHD after HCT. *Blood (ASH Annual Abstracts)* 116: 215, 2010.
  18. **Engelhardt BG**, Griffith ML, Crowe, Jr. JE, Savani BN, Kassim AA, Yoder SM, Rock MT, Jagasia SM, Jagasia MH. Interaction between post-transplant diabetes mellitus and regulatory t cell phenotype. *Blood (ASH Annual Meeting Abstracts)* 118: 3039, 2011.
  19. Clark WB, Gentry-Brown KD, Crawford DC, Fan KH, Chen H, Savani BN, Kassim A, Greer JP, Schuening FG, **Engelhardt BG**, Jagasia MH. Genetic variation in donor ctla-4 regulatory region is associated with relapsed free survival and overall survival after allogeneic hematopoietic cell transplant. *Biol Blood Marrow Transplantation* 17 (2): S161-S162, 2011.
  20. Jacobs RW, Jagasia MH, Savani BN, Neff AT, Kassim AA, **Engelhardt BG**, Goodman SA, Greer JP, Proctor K, Schuening F, Russell NH, Das-Gupta E. Extracorporeal photopheresis (ECP): Effective therapy for steroid dependent and refractory acute graft-versus-host disease (GVHD). *Blood (ASH Annual Meeting Abstracts)* 118: 1973, 2011.
  21. Jacobs RW, Jagasia MN, Savani BN, Neff AT, **Engelhardt BG**, Goodman S, Greer JP, Proctor K, Schuening F, Russell NH, Das-Gupta, E. Extracorporeal photopheresis: Effective therapy for steroid dependent and refractory acute graft-versus-host disease. *Biol Blood Marrow Transplant* 18 (2): S222, 2012.
  22. Vaughan LA, Jagasia M, **Engelhardt B**, Hageman D, McCarty K, Kassim A, Clifton C, Lucid C, Domm J, Greer JP, Frangoul H, Savani BN. New onset of severe allergic manifestations in long term survivors after cord blood transplantation. *Biol Blood Marrow Transplantation* 18 (2): S285, 2012.
  23. Sengsayadeth SM, Jagasia M, **Engelhardt BG**, Kassim A, Strickland SA, Goodman S, Lucid C, Vnencek-Jones CL, Greer JP, Savani BN. Allogeneic stem cell transplantation for FLT3/ITD positive acute myeloid leukemia in CR1: Implication for personalized therapy to prevent early relapses. *Biol Blood Marrow Transplantation* 18(2): S332-S333, 2012.
  24. Chinratanalab W, Reddy N, Greer JP, **Engelhardt B**, Kassim A, Morgan D, Brandt SJ, Jagasia M, Goodman S, Savani BN. Nonablative conditioning regimen for CD20+ B-cell lymphoid malignancies: Should conditioning regimens be individualized to optimize transplant outcome? *Biol Blood Marrow Transplant* 18 (2): S352, 2012.
  25. Jagasia M, Das-Gupta E, Jacobs R, Savani B, Proctor K, Kassim A, **Engelhardt B**, Worel N, Knobler R, Russell N, Greinix H. Extracorporeal photopheresis: effective second-line therapy for steroid-dependent and refractory acute graft-

- versus-host disease. Physicians Poster Abstracts EBMT 2012. Bone Marrow Transplant. 47(S1):S157, 2012.
26. Robin M, Jagasia M, Greinix h, Das-Gupta E, Jacobs R, Savani B, **Engelhardt B**, Kassim A, Worel N, Knobler R, Russell N, Socie G. Extracorporeal photopheresis compared to systemic immunosuppressive as second-line therapy for steroid dependent and refractory acute graft-versus-host disease: international multi-centre study. Physicians Oral Abstracts EBMT 2012. Bone Marrow Transplant. 47(s1): S13, 2012.
  27. **Engelhardt BG**, Jagasia SM, Crowe Jr JE, Griffith ML, Savani BN, Kassim AA, Lu P, Weitkamp JH, Moore DJ, Yoder SM, Rock MT, Jagasia M. Brief report predicting posttransplantation diabetes mellitus by regulatory T cell phenotype: implications for metabolic intervention to modulate alloreactivity. Blood (ASH Annual Meeting Abstracts) 119: 2417-2421, 2012.
  28. Reddy NM, Oluwole OO, Greer JP, Goodman S, **Engelhardt B**, Chinratanalab W, Kassim AA, Jagasia M, Savani BN. Comparison of autologous vs. allogeneic stem cell transplantation for non-Hodgkin lymphoma. Blood (ASH Annual Meeting Abstracts) 120:2036, 2012.
  29. Ragon BK, Clifton C, Savani BN, **Engelhardt B**, Kassim AA, Vaughan LA, Lucid C, Jagasia M. Follow-up long term transplant clinic overcomes the barrier of geographic distance from transplant center. Blood (ASH Annual Meeting Abstracts) 120: 2070, 2012.
  30. Sengsayadeth SM, Jagasia M, Greer JP, Chen H, Goodman S, Chinratanalab W, Kassim AA, Savani BN, **Engelhardt BG**. Six-month freedom from steroid failure complements day 28 response to steroids as a predictor of survival after acute graft-versus-host disease treatment. Blood (ASH Annual Meeting Abstracts) 120:4187, 2012.
  31. Kassim A, McDuffie JS, Mosse CA, Savani BN, Greer JP, Oluwole OO, Goodman S, **Engelhardt BG**, Chinratanalab W, Kim AS, Jagasia MH. Minimal residual disease (MRD) status pre- and post- high-dose therapy/autologous stem (HDC/ASCT) cell transplantation for multiple myeloma (MM) in the era of novel agents. J Clin Onc (ASCO Meeting Abstracts) 8605; 2013.
  32. McDuffie JS, Savani BN, Chinratanalab W, Goodman S, Greer JP, Oluwole OO, **Engelhardt BG**, Jagasia MH, Kassim A. Early lymphocyte recovery (ELR) impact on disease outcome following autologous hematopoietic stem cell transplantation (HDT/ASCT) for multiple myeloma (MM) in the era of novel agents. J Clin Onc (ASCO Meeting Abstracts) e19539, 2013.
  33. **Engelhardt BG**, Jung DK, Savani BN, Jagasia MH, Kassim AK, Sengsayadeth S, Yoder S, Rock M, Crowe Jr. JE. Early Th1 immunity decreases acute graft-versus-host disease and impairs graft-versus-leukemia effect after allogeneic hematopoietic cell transplantation. Physicians Oral Abstracts ASBMT 2014. Biol Blood Marrow Transplant 20 (2): S51-52, 2014.
  34. Vanessa E. Kennedy, Heidi Chen, Bipin N Savani, John P. Greer, Adetola A. Kassim, **Brian G. Engelhardt**, Stacy A. Goodman, Salyka M. Sengsayadeth, Wichai Chinratanalab, Madan H. Jagasia, Optimizing Anti- Thymocyte Globulin Dosing Based on Recipient absolute Lymphocyte Count after Unrelated

- Allogeneic Hematopoietic Cell Transplant, *Blood* 2015 126:4410 published ahead of print December 4, 2015.
35. Vanessa E. Kennedy, Heidi Chen, Bipin N Savani, John P. Greer, Adetola A. Kassim, **Brian G. Engelhardt**, Stacy A. Goodman, Salyka M. Sengsayadeth, Wichai Chinratanalab, Madan H. Jagasia, Reduced Intensity Conditioning with Fludarabine, Cyclophosphamide, and Rituximab Is Associated with Improved Outcomes When Compared to Fludatabine and Busulfan Following Allogeneic Hematopoietic Cell Transplantation for Lymphoid Malignancies, *Blood* 2015 126:4409 published ahead of print December 4, 2015.
  36. Mary Christa Krupski, Andrew Bradford, Kathryn Culos, Adetola A. Kassim, Brian G, Engelhardt, John P. Greer, Bipin N. Savani, Wichai Chinratanalab, Madan Jagasia, Tacrolimus Metabolism and Risk of Acute Graft Versus Host Disease, *Blood* 2015 126: 1954: published ahead of print December 4, 2015.
  37. Romany Anne Nilanthi Johnpulle, Sophie Paczesny, Dae Kwang Jung, Etienne Daguindau, Madan H. Jagasia, Bipin N. Savani, Wichai Chinratanalab, Robert F. Cornell, Stacy Goodman, John Greer, Adetola A. Kassim. Salyka Sengsayadeth, **Brian G. Engelhardt**, Metabolic Complications Precede alloreactivity and are Characterized by Changes in ST2 Signaling, *Bio Blood Transplant* 22 S19-S4881 2016.

### Invited Lectures

- |          |  |
|----------|--|
| 03/04/04 | “Use of Prophylactic Ganciclovir and CMV Antigen Screening in Allogeneic Stem Cell Transplant Patients Receiving High-Dose Steroids.” Poster Presentation, GlaxoSmithKline 2004 National Medical Hematology Oncology Fellows Forum, Orlando, Florida                       |
| 05/25/04 | “CNS Lymphoma.” Division Seminar, Division of Hematology and Oncology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee  |
| 06/06/04 | “Open Lung Biopsy to Diagnose Pulmonary Complications after High Dose Chemotherapy and Allogeneic Stem Cell Transplant.” Poster Presentation, 40 <sup>th</sup> Annual Meeting of the American Society of Clinical Oncology, New Orleans, Louisiana                         |
| 02/02/05 | “Late Onset Noninfectious Pulmonary Complications Following Allogeneic Stem Cell Transplantation.” Grand Rounds, Division of Hematology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee  |
| 04/29/05 | “Open Lung Biopsy to Diagnose Pulmonary Complications after High Dose Chemotherapy and Allogeneic Stem Cell Transplant.” Poster Presentation, Vanderbilt University Medical Center Graduate Medical Education 23 <sup>rd</sup> Annual Research Forum, Nashville, Tennessee |

- 10/06/05 “The Treatment of Hematological Malignancies with Single or Double Umbilical Cord Blood Unit Transplantation Followed by Graft-versus-Host Disease Prophylaxis with Tacrolimus and Mycophenolate Mofetil.” Poster Presentation, Amgen Oncology Fellows and Pharmacy Residents Symposium, Thousand Oaks, California
- 06/03/06 “High Dose Chemotherapy Followed by Autologous Stem Cell Transplantation for Relapsed or Refractory Hodgkin’s Lymphoma.” Poster Presentation, 42<sup>nd</sup> Annual Meeting of the American Society of Clinical Oncology, Atlanta, Georgia
- 06/26/08 “Regulatory T cells and Acute Graft-versus-Host Disease.” Rheumatology Grand Rounds, Division of Rheumatology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee
- 12/8/08 “Circulating Gut- or Skin-Homing Regulatory T Cells (Tregs) Predict Whether Acute Graft-versus-Host Disease (aGVHD) Occurs in Gut or Skin Following Allogeneic Stem Cell Transplantation (ASCT).” Oral Presentation, 50<sup>th</sup> Annual Meeting of the American Society of Hematology, San Francisco, California
- 02/27/09 “Circulating Gut- or Skin-Homing Regulatory T Cells (Tregs) Predict Whether Acute Graft-versus-Host Disease (aGVHD) Occurs in Gut or Skin Following Allogeneic Stem Cell Transplantation (ASCT).” Oral Presentation, Experimental Therapeutics & Signal Transduction and Cell Proliferation Program Retreat, Vanderbilt-Ingram Cancer Center, Nashville, Tennessee
- 04/23/09 “Regulatory T Cells, GVHD, and the Rebirth of the T Suppressor.” Medical Grand Rounds, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee
- 12/11/09 “Marrow Failure Syndromes.” Division Seminar, Division of Hematology and Oncology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee
- 08/23/13 “Transplant Immunology and Graft-versus-Host Disease.” Vanderbilt-Ingram Cancer Center and CTSR Research Compliance Educational Series, Vanderbilt University Medical Center, Nashville, Tennessee
- 02/27/14 “Early Th1 immunity decreases acute graft-versus-host disease and impairs graft-versus-leukemia effect after allogeneic hematopoietic cell transplantation.” American Society for Blood and Marrow Transplantation 2014 BMT Tandem Meetings, Dallas, Texas
- 10/14/15 “Metabolic and CD4 + T Cell Dysregulation during Allogeneic Hematopoietic Stem Cell Transplantation.” Grand Rounds, Division

of Hematology, Department of Medicine, Vanderbilt University  
Medical Center, Nashville, Tennessee

02/21/16            “Metabolic Complications Precede alloreactivity and are  
Characterized by Changes in ST2 Signaling.” American Society for  
Blood and Marrow Transplantation 2016 BMT Tandem Meetings,  
Honolulu, Hawaii

04/28/16            “The Metabolism of Transplant, a Story from an Accidental  
Endocrinologist.” Medical Grand Rounds, Department of Medicine,  
Vanderbilt University Medical Center, Nashville, Tennessee