

Bone Marrow Transplantation and Immune Deficiency

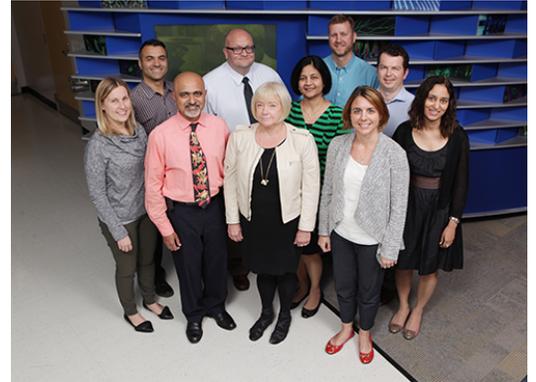
Division Details

RESEARCH AND TRAINING DETAILS

Faculty	14
Joint Appointment Faculty	4
Research Fellows and Post Docs	1
Research Graduate Students	1
Total Annual Grant Award Dollars	\$502,686
Total Annual Industry Award Dollars	\$644,630

CLINICAL ACTIVITIES AND TRAINING

Staff Physicians	7
Clinical Fellows	5
Inpatient Encounters	462
Outpatient Encounters	5,895



Row 1: C Krupski, A Kumar, S Davies, K Myers, P Khandelwal

Row 2: J El-Bietar, C Dandoy, P Mehta, M Jordan, A Nelson

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Division Publications

1. Rotz SJ; Dandoy CE; Davies SM. **ST2 and Endothelial Injury as a Link between GVHD and Microangiopathy.** *The New England journal of medicine.* 2017; 376:1189-1190.
2. de la Morena MT; Leonard D; Torgerson TR; Cabral-Marques O; Slatter M; Aghamohammadi A; Chandra S; Murguia-Favela L; Bonilla FA; Kanariou M. **Long-term outcomes of 176 patients with X-linked hyper-IgM syndrome treated with or without hematopoietic cell transplantation.** *Journal of Allergy and Clinical Immunology.* 2017; 139:1282-1292.
3. Chandrakasan S; Marsh RA; Uzel G; Holland SM; Shah KN; Bleesing J. **Outcome of patients with NEMO deficiency following allogeneic hematopoietic cell transplant.** *Journal of Allergy and Clinical Immunology.* 2017; 139:1040-1043.e2.
4. Rubin TS; Zhang K; Gifford C; Lane A; Choo S; Bleesing JJ; Marsh RA. **Perforin and CD107a testing is superior to NK cell function testing for screening patients for genetic HLH.** *Blood.* 2017; 129:2993-2999.

5. Lounder DT; Khandelwal P; Dandoy CE; Jodele S; Grimley MS; Wallace G; Lane A; Taggart C; Teusink-Cross AC; Lake KE. **Lower levels of vitamin A are associated with increased gastrointestinal graft-versus-host disease in children.** *Blood*. 2017; 129:2801-2807.
6. Mehta PA; Davies SM; Leemhuis T; Myers K; Kernan NA; Prockop SE; Scaradavou A; O'Reilly RJ; Williams DA; Lehmann L. **Radiation-free, alternative-donor HCT for Fanconi anemia patients: results from a prospective multi-institutional study.** *Blood*. 2017; 129:2308-2315.
7. Holtan SG; Khera N; Levine JE; Chai X; Storer B; Liu HD; Inamoto Y; Chen GL; Mayer S; Arora M. **Late acute graft-versus-host disease: a prospective analysis of clinical outcomes and circulating angiogenic factors.** *Blood*. 2016; 128:2350-2358.
8. Khoury HJ; Wang T; Hemmer MT; Couriel D; Alousi A; Cutler C; Aljurf M; Battiwalla M; Cahn JY; Cairo M. **Improved survival after acute graft-versus-host disease diagnosis in the modern era.** *Haematologica: the hematology journal*. 2017; 102:958-966.
9. Lazaryan A; Wang T; Spellman SR; Wang HL; Pidala J; Nishihori T; Askar M; Olsson R; Oudshoorn M; Abdel-Azim H. **Human leukocyte antigen supertype matching after myeloablative hematopoietic cell transplantation with 7/8 matched unrelated donor allografts: a report from the Center for International Blood and Marrow Transplant Research.** *Haematologica: the hematology journal*. 2016; 101:1267-1274.
10. Shaw MA; Gao Z; McElhinney KE; Thornton S; Flick MJ; Lane A; Degen JL; Ryu JK; Akassoglou K; Mullins ES. **Plasminogen Deficiency Delays the Onset and Protects from Demyelination and Paralysis in Autoimmune Neuroinflammatory Disease.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*. 2017; 37:3776-3788.
11. El-Jawahri A; Chen YB; Brazauskas R; He N; Lee SJ; Knight JM; Majhail N; Buchbinder D; Schears RM; Wirk BM. **Impact of pre-transplant depression on outcomes of allogeneic and autologous hematopoietic stem cell transplantation.** *Cancer*. 2017; 123:1828-1838.
12. Dandoy CE; Hausfeld J; Flesch L; Hawkins D; Demmel K; Best D; Osterkamp E; Bracke T; Nagarajan R; Jodele S. **Rapid cycle development of a multifactorial intervention achieved sustained reductions in central line-associated bloodstream infections in haematology oncology units at a children's hospital: a time series analysis.** *BMJ Quality and Safety*. 2016; 25:633-643.
13. Chirieleison SM; Marsh RA; Kumar P; Rathkey JK; Dubyak GR; Abbott DW. **Nucleotide-binding oligomerization domain (NOD) signaling defects and cell death susceptibility cannot be uncoupled in X-linked inhibitor of apoptosis (XIAP)-driven inflammatory disease.** *The Journal of biological chemistry*. 2017; 292:9666-9679.
14. Rebecca AM. **Diagnostic dilemmas in HLH: Can T-cell phenotyping help?.** *European Journal of Immunology*. 2017; 47:240-243.
15. Dietz AC; Mehta PA; Vlachos A; Savage SA; Bresters D; Tolar J; Boulad F; Dalle JH; Bonfim C; de la Fuente J. **Current Knowledge and Priorities for Future Research in Late Effects after Hematopoietic Cell Transplantation for Inherited Bone Marrow Failure Syndromes: Consensus Statement from the Second Pediatric Blood and Marrow Transplant Consortium International Conference on Late Effects after Pediatric Hematopoietic Cell Transplantation.** *Biology of Blood and Marrow Transplantation*. 2017; 23:726-735.
16. Lounder DT; Khandelwal P; Chandra S; Jordan MB; Kumar AR; Grimley MS; Davies SM; Bleesing JJ; Marsh RA. **Incidence and Outcomes of Central Nervous System Hemophagocytic Lymphohistiocytosis Relapse after Reduced-Intensity Conditioning Hematopoietic Stem Cell Transplantation.** *Biology of Blood and Marrow Transplantation*. 2017; 23:857-860.
17. Simms-Waldrip TR; Sunkersett G; Coughlin LA; Savani MR; Arana C; Kim J; Kim M; Zhan X; Greenberg DE; Xie Y. **Antibiotic-Induced Depletion of Anti-inflammatory Clostridia Is Associated with the Development of Graft-versus-Host Disease in Pediatric Stem Cell Transplantation Patients.** *Biology of Blood and Marrow Transplantation*. 2017; 23:820-829.
18. Marsh RA; Fukuda T; Emoto C; Neumeier L; Khandelwal P; Chandra S; Teusink-Cross A; Vinks AA; Mehta PA. **Pretransplant Absolute Lymphocyte Counts Impact the Pharmacokinetics of Alemtuzumab.** *Biology of Blood and Marrow Transplantation*. 2017; 23:635-641.

19. Grimley MS; Chemaly RF; Englund JA; Kurtzberg J; Chittick G; Brundage TM; Bae A; Morrison ME; Prasad VK. **Brincidofovir for Asymptomatic Adenovirus Viremia in Pediatric and Adult Allogeneic Hematopoietic Cell Transplant Recipients: A Randomized Placebo-Controlled Phase II Trial.** *Biology of Blood and Marrow Transplantation.* 2017; 23:512-521.
20. Khandelwal P; Emoto C; Fukuda T; Vinks AA; Neumeier L; Dandoy CE; El-Bietar J; Chandra S; Davies SM; Bleesing JJ. **A Prospective Study of Alemtuzumab as a Second-Line Agent for Steroid-Refractory Acute Graft-versus-Host Disease in Pediatric and Young Adult Allogeneic Hematopoietic Stem Cell Transplantation.** *Biology of Blood and Marrow Transplantation.* 2016; 22:2220-2225.
21. Khandelwal P; Bleesing JJ; Davies SM; Marsh RA. **A Single-Center Experience Comparing Alemtuzumab, Fludarabine, and Melphalan Reduced-Intensity Conditioning with Myeloablative Busulfan, Cyclophosphamide, and Antithymocyte Globulin for Chronic Granulomatous Disease.** *Biology of Blood and Marrow Transplantation.* 2016; 22:2011-2018.
22. Teusink-Cross A; Davies SM; Danziger-Isakov L; El-Bietar J; Grimley MS. **Restrictive Palivizumab Use Does Not Lead to Increased Morbidity and Mortality in Pediatric Hematopoietic Stem Cell Transplantation Patients.** *Biology of Blood and Marrow Transplantation.* 2016; 22:1904-1906.
23. Khandelwal P; Fukuda T; Mizuno K; Teusink-Cross A; Mehta PA; Marsh RA; Kashuba ADM; Vinks AA; Davies SM. **A Pharmacokinetic and Pharmacodynamic Study of Maraviroc as Acute Graft-versus-Host Disease Prophylaxis in Pediatric Allogeneic Stem Cell Transplant Recipients with Nonmalignant Diagnoses.** *Biology of Blood and Marrow Transplantation.* 2016; 22:1829-1835.
24. Dandoy CE; Haslam D; Lane A; Jodele S; Demmel K; El-Bietar J; Flesch L; Myers KC; Pate A; Rotz S. **Healthcare Burden, Risk Factors, and Outcomes of Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infections after Stem Cell Transplantation.** *Biology of Blood and Marrow Transplantation.* 2016; 22:1671-1677.
25. Ballen K; Woo Ahn K; Chen M; Abdel-Azim H; Ahmed I; Aljurf M; Antin J; Bhatt AS; Boeckh M; Chen G. **Infection Rates among Acute Leukemia Patients Receiving Alternative Donor Hematopoietic Cell Transplantation.** *Biology of Blood and Marrow Transplantation.* 2016; 22:1636-1645.

Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

Investigator	Title	Sponsor	ID	Dates	Amount
Alexandra H Filipovich, MD	Gene Therapy for SCID-X1 Using Self-Inactivating Gammare	National Institutes of Health (Children's Hospital Boston)	U01 AI087628	09/01/2010 - 08/31/2016	\$631
Sharat Chandra, MD	Pharmacokinetic Monitoring for Personalized Drug Dosing for Very Small Children undergoing Hematopoietic Stem Cell Transplantation	Am Society for Blood & Marrow Transplant	Chandra, Sharat, ASB	07/01/2015 - 06/30/2017	\$30,000
Alexandra H Filipovich, MD	Primary Immune Deficiency Treatment Consortium	National Institutes of Health (The Univ of California, San Francisco)	U54 AI082973	09/01/2014 - 08/31/2019	\$24,210
Rebecca A Marsh, MD	CD38 Bright CD8+ Effector Memory T-cells Herald Acute Graft versus Host Disease	Doris Duke Charitable Foundation	Marsh, rebecca, DD	07/01/2015 - 06/30/2018	\$162,000

Stella M Davies, MD	Childhood Cancer Survivor Study	National Institutes of Health (St Jude's Children's Hospital)	U24 CA055727	12/01/2016 - 11/30/2021	\$218,151
Ashish R Kumar, MD, PhD	Phase II Study of Clofarabine in Refractory Langerhans Cell Histiocytosis	Cookies for Kids' Cancer (Dana Farber Cancer Institute)	Kumar, Ashish, Cooki	08/01/2016 - 08/31/2017	\$2,330
Sonata Jodele, MD	Immune Dysregulation and CKD after BMT	National Institutes of Health (Children's Hospital of Philadelphia)	K23 DK101600	05/01/2016 - 04/30/2018	\$2,487
Rebecca A Marsh, MD	A Registry of Patients with Primary Immune Deficiency Disorders	US Immunodeficiency Network	Marsh, Rebecca, USID	06/01/2016 - 05/31/2019	\$8,900
Michael B Jordan, MD	Consortium for Clinical and Translational Research in LCH	St. Baldrick's Foundation (St Jude's Children's Hospital)	318937	11/09/2015 - 06/30/2018	\$14,220
Michael B Jordan, MD	LCH-IV: International Collaborative Treatment Protocol for Children and Adolescents with Langerhans Cell Histiocytosis	St Jude's Children's Hospital	NACHO	10/01/2016 - 09/30/2019	\$3,000
Rebecca A Marsh, MD	Resources to Assist Investigations in Primary Immunodeficiency Diseases	National Institutes of Health (US Immunodeficiency Network)	U24 AI086037	04/01/2017 - 03/31/2018	\$36,757

Total Annual Grant Award Dollars

\$502,686

Annual Industry Award Dollars

Investigator	Industry Sponsor	Amount
Michael B Jordan, MD	NovImmune SA	\$20,000
Michael Sean Grimley, MD	Chimerix, Inc.	\$504,250
Rebecca A Marsh, MD	AB2 Bio Ltd.	\$66,150
Sonata Jodele, MD	Novartis Pharmaceuticals	\$54,230
Total Annual Industry Award Dollars		\$644,630