Bone Marrow Transplantation and Immune Deficiency

RESEARCH AND TRAINING DETAILS

<table>
<thead>
<tr>
<th>Faculty</th>
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<tr>
<td>Joint Appointment Faculty</td>
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<td>Research Fellows</td>
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<tr>
<td>Support Personnel</td>
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<tr>
<td>Direct Annual Grant Support</td>
<td>$814,445</td>
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<td>Direct Annual Industry Support</td>
<td>$468,042</td>
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<tr>
<td>Peer Reviewed Publications</td>
<td>45</td>
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CLINICAL ACTIVITIES AND TRAINING

| Clinical Staff                      | 4  |
| Staff Physicians                    | 7  |
| Clinical Fellows                    | 7  |
| Other Students                      | 2  |
| Inpatient Encounters                | 10,400 |
| Outpatient Encounters               | 6,344 |
Division Publications


34. Niss O, Sholl A, Bleesing JJ, Hildeman DA. IL-10/Janus kinase/signal transducer and activator of transcription 3


Faculty, Staff, and Trainees

Faculty Members

Stella Davies, MBBS, PhD, MRCP, Professor
  Leadership Jacob G. Schmidlapp Endowed Chair; Director, Bone Marrow Transplantation and Immune Deficiency; Executive Co-Director, Cancer and Blood Diseases Institute; Director, Division of Bone Marrow Transplantation and Immune Deficiency
  Research Interests Blood and marrow transplant; fanconi anemia and other marrow failure disorders; pharmacogenetics and pharmacokinetics; survivorship research; and BMT for children with leukemia.

Jacob Blesing, MD, PhD, Professor
  Research Interests Clinical investigation of primary immunodeficiency disorders, with emphasis on disorders of immunodysregulation and B-cell disorders.

Sharat Chandra, MD, Assistant Professor
  Research Interests Bone marrow transplantation for children with malignant and primary immune deficiency disorders.

Christopher Dandoy, MD, Instructor
  Research Interests Primary focuses are on quality improvement, patient safety, and cardiopulmonary complications including pulmonary hypertension after bone marrow transplantation.

Javier El-Bietar, MD, Assistant Professor
  Research Interests Bone marrow transplantation for malignant and nonmalignant diseases of childhood, transplant-associated complications and infections involving the gut.

Alexandra Filipovich, MD, Professor
  Leadership Ralph J. Stolle Chair in Clinical Immunology; Director, Immunodeficiency and; Medical Director, Diagnostic Laboratory
  Research Interests Histiocytic disorders; primary immune deficiency disorders and immunoreconstitution following pediatric stem cell transplantation.

Michael Grimley, MD, Associate Professor
  Research Interests Bone marrow transplantation for children with malignant and non-malignant disorders and treatment of chronic GVHD.

Richard Harris, MD, Professor Emeritus
  Research Interests Transplantation for children with bone marrow failure syndromes and aplastic anemia.

Sonata Jodele, MD, Associate Professor
  Research Interests Phase I clinical trials; stem cell transplantation; high risk pediatric malignancies; childhood neuroblastoma; Ewingís sarcoma; renal complications of transplantation.

Pooja Khandelwal, MD, Assistant Professor
  Research Interests Acute graft versus host disease; refractory autoimmune cytopenias post transplant; biology of engraftment syndrome.

Zeynep Kucuk, MD, Instructor
  Research Interests Characterization and clinical investigation of primary immunodeficiency disorders including immune dysregulation disorders, autoimmune gastroenteropathy and epidemiology of HLH.

Ashish Kumar, MD, PhD, Associate Professor
**Research Interests** Etiology of childhood leukemia; transplantation of children with malignancy and primary immune deficiencies.

**Adam Lane, PhD,** Assistant Professor  
**Research Interests** Adaptive designs for phase I/II clinical trials, survival analysis and structural equation modeling.

**Rebecca Marsh, MD,** Assistant Professor  
**Research Interests** Pathogenesis of HLH with XIAP deficiency; diagnostic laboratory assays; improving outcomes of allogeneic BMT in primary immune deficiencies; use of reduced intensity conditioning regimens.

**Parinda Mehta, MD,** Associate Professor  
**Research Interests** Blood and marrow transplant; Fanconi anemia and other failure disorders; pharmacogenetics and pharmacokinetics.

**Kasiani Myers, MD,** Assistant Professor  
**Research Interests** Blood and marrow transplant; Fanconi anemia and other marrow failure disorders; longitudinal studies of hematopoiesis.

**Janos Sumegi, MD, PhD,** Professor  
**Research Interests** Lymphoproliferative disease, hemophagocytic lymphohistiocytosis; Usher syndrome; etiology of childhood sarcomas.

**Joint Appointment Faculty Members**

**Mark Johnson, MD,** Assistant Professor (Child Psychiatry)  
**Research Interests** Psychiatric support of bone marrow transplant patients.

**Michael Jordan, MD,** Associate Professor (Immunobiology)  
**Research Interests** Regulation of the immune response; immunotherapy of cancer, animal models of hemophagocytic disorders.

**Ahna Pai, PhD,** Associate Professor (Adherence Psychology in children receiving bone marrow transplantation)

**Clinical Staff Members**
- **Stephanie Benoit, MD**
- **Paulina Daniels, DO**
- **Teresa Finke, MD**
- **Ernest Lawhorn, MD**
- **Krista Nee, MD**
- **Lisa Petiniot, MD**
- **Gregory Wallace, DO**
- **Paula Cuthrell, RN, MSN, CFNP**
- **Jennifer Detzel, RN, MSN, CFNP**
- **Laura Diggs, RN, MSN, CNP**
- **Mary Ann Michael, RN, MSN, CPNP**

**Trainees**
- **Manar Abdalgani, MD,** PL-V, VCU Medical Center
- Shanmuganathan Chandrakasan, MD, PLVIII, Children's Hospital of Detroit
- Blachy Dávila Saldaña, MD, PLVIII, Oregon Health & Sciences University
- Lynn Lee, MD, PL-V, Cincinnati Children's Hospital Medical Center
- Adam Nelson, MD, PL-VII, Centre for Children's Cancer & Blood Disorders, Sydney Children's Hospital
- Ahmad Rayes, MD, PL-VI, SUNY Upstate Medical University
- Seth Rotz, MD, PL-V, Rainbow Babies & Children's Hospital and University Hospital, Case Medical Center

## Grants, Contracts, and Industry Agreements

### Grant and Contract Awards

<table>
<thead>
<tr>
<th>Grant and Contract Awards</th>
<th>Annual Direct</th>
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<tr>
<td><strong>Davies, S</strong></td>
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<tr>
<td>Molecular Epidemiology of Pediatric Germ Cell Tumors</td>
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<tr>
<td>National Institutes of Health (University of Minnesota)</td>
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<tr>
<td>R01 CA151284 8/10/2011-5/31/2016</td>
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<td><strong>COG NCTN Network Group Operations Center</strong></td>
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<tr>
<td>National Institutes of Health (Children's Hospital of Philadelphia)</td>
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<td><strong>Childhood Cancer Survivor Study</strong></td>
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<td>National Institutes of Health (St Jude's Children's Hospital)</td>
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<td>U24 CA055727 12/1/2011-11/30/2016</td>
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<td><strong>Filipovich, A</strong></td>
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<td>Gene Therapy for SCID-X1 Using Self-Inactivating (SIN) Gammaretroviral Vector</td>
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<td>National Institutes of Health (Children's Hospital Boston)</td>
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<td><strong>Rare Diseases Clinical Consortia for the Rare Diseases</strong></td>
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<td>National Institutes of Health (Regents of University of California)</td>
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<td>U54 AI082973 9/12/2009-8/31/2014</td>
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<td><strong>Reduced-Intensity Conditioning for Children and Adult with Hemophagocytic Syndromes or Selected Primary Immune Deficiencies</strong></td>
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<td>National Institutes of Health (Children's Hospital of Philadelphia)</td>
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Consortium for Clinical and Translational Research in LCH
St. Baldrick's Foundation (Dana Farber Cancer Institute)

Kumar, A
The Role of MEIS1 in Hematopoiesis and Hematopoietic Transformation
National Institutes of Health
R01 HL111192 7/15/2012-4/30/2017 $271,891

Mehta, P
Personalizing Melphalan Dosing based on Novel Bedside Pharmacokinetics in Children Undergoing Bone Marrow Transplantation: A Pilot Study
Cancer Free Kids
7/1/2014-6/30/2015 $40,000

Phase I Study of Quercetin for the Treatment of Fanconi Anemia
Food and Drug Administration
R01 FD004383 9/16/2013-7/31/2016 $133,433

Myers, K
Chemoprevention of Leukemia in a Genetically Susceptible Population
Conquer Cancer Foundation
7/1/2012-6/30/2015 $62,466

Sumegi, J
Comprehensive mRNA/miRNAs Expression Analysis in Familial Hemophagocytic Lymphohistiocytosis Type 2, using the C57BL/6-Prf1tm1sdz/J Murine Model
Histiocytosis Association of America
1/1/2015-12/31/2015 $50,000

Current Year Direct $814,445

Industry Contracts

Davies, S
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<td>Novartis</td>
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<td>Prolacta Bioscience Inc</td>
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<td>Chimerix, Inc</td>
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<td>Asellas Pharma US, Inc</td>
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**Current Year Direct Receipts**  
$468,042

**Total**  
$1,282,487