Jakub Tolar, MD, PhD
Dean, Vice President for Clinical Affairs

Biography

Jakub Tolar, MD, PhD is the dean of the University of Minnesota Medical School and a Distinguished McKnight University Professor in the Department of Pediatrics, Blood and Marrow Transplant & Cellular Therapy. He is also the vice president for Clinical Affairs at the University of Minnesota, board chair for University of Minnesota Physicians and co-leader of M Health Fairview, the joint clinical enterprise among the University of Minnesota Medical School, University of Minnesota Physicians and Fairview Health Services. An internationally recognized physician and researcher, Dr. Tolar is known for his care of patients with recessive dystrophic epidermolysis bullosa. His research is focused on developing cellular therapies for rare genetic disorders. Originally from the Czech Republic, Dr. Tolar received his medical education (MD) in Prague at Charles University. In 1992, he came to the University of Minnesota, where he received his PhD in Molecular, Cellular & Developmental Biology and Genetics.

Education

Graduate School

- PhD, University of Minnesota, Molecular, Cellular & Developmental Biology and Genetics

Medical School

- MD, Charles University 1st Medical School, summa cum laude

Residency

- Pediatrics, University of Minnesota Medical Center, 1997 – 2000

Fellowships

- Pediatric Hematology-Oncology/Blood and Marrow Transplantation, University of Minnesota Medical Center, 2000 – 2003
- Postdoctoral Fellow, University of Minnesota, Institute of Human Genetics, 1996 – 1997

Additional Details

- Examination of Maturity, Other, Summa cum laude, Na vitezne plani
  Major: Biology

CURRICULUM VITAE
JAKUB TOLAR, MD, PHD

PROFESSIONAL ADDRESS
420 Delaware Street SE, MMC 293
Minneapolis, Minnesota 55455
Phone: 612-626-4949
E-mail: tolar003@umn.edu

IDENTIFYING INFORMATION

Education

Examination of Maturity, *summa cum laude*	Na vitezne plani, Prague, Czechoslovakia Biology (equivalent to BS)	1980-1984
MD, *summa cum laude*	Charles University 1st Medical School	1984-1990
PhD	University of Minnesota, Molecular, Cellular & Developmental Biology and Genetics	1992-1996
Postdoctoral Fellow	University of Minnesota Institute of Human Genetics	1996-1997
Pediatric Resident	University of Minnesota Medical Center	1997-2000
Fellow	University of Minnesota Medical Center, Pediatric Hematology-Oncology/Blood & Marrow Transplantation	2000-2003

Certifications, Licenses

American Sub Board of Pediatric Hematology/Oncology #001866	2004-present
American Board of Pediatrics #071445	2000-present
DEA registration #BT6665004	1997-present
Minnesota Medical License #42278	1997-present

Academic Appointments

University of Minnesota Medical School, Twin Cities Campus, Department of Pediatrics

Professor, with tenure	2014-present
Associate Professor, with tenure	2010-2014
Assistant Professor	2003-2010

Charles University, Department of Anatomy, Prague, Czech Republic

Assistant Professor	1990-1992

Academic Administrative Appointments

Vice President for Clinical Affairs	2018-present
Chair, Board of Directors, University of Minnesota Physicians	2018-present
Dean, University of Minnesota Medical School	2017-present
Interim Vice President, University of Minnesota Health Sciences	2017-2018
Executive Vice Dean, University of Minnesota Medical School	2016-2017

Director, Stem Cell Institute, University of Minnesota	2013-2019
Director, Stem Cell/Gene Therapies, Division of Blood and Marrow Transplantation, University of Minnesota	2011-2013
Director, Pediatric Hematology/Oncology Rotation PED 7536 University of Minnesota Medical School, 96 medical students mentored	2005-2013

Graduate Faculty Member

Microbiology, Immunology and Cancer Biology (MICaB)	2011-present
Molecular, Cellular, and Developmental Biology and Genetics (MCDB&G)	2011-present
Stem Cell Biology (SCB)	2009-present

Clinical/Hospital Appointments

Attending Physician, Pediatric Bone Marrow Transplant, M Health Fairview Masonic Children's Hospital	2003-present

Consulting Positions

Medical Alley Board	2023-present
Morrison Family College of Health Advisory Board, University of St. Thomas	2020-present
Scientific Committee, 1st Global Congress on Epidermolysis Bullosa, EB 2020 London	2018-2022
Scientific Advisory Board, Richard M Schulze Family Foundation	2015-present
AFM-Telethon Scientific Committee on Gene and/or Cell Therapy of Rare Disorders	2015-2019
Data Safety Monitoring Board, NYSTEM, Consortium for "The use of unrestricted somatic stem cells (USSCs) in the treatment of selected patients with RDEB"	2015-2019
Data Monitoring Committee, King's College London, LENTICOL-F	2015-2017
Trial Steering Committee, King's College London, "Phase I study of Lentiviral-mediated COL7A1 gene modified autologous fibroblasts in adults with recessive dystrophic epidermolysis"	2015-2017
Data Monitoring Committee, Novartis Pharma AG, TAM clinical trial	2015-2017
Chair, NYSTEM Empire State Institutional Training Programs in Stem Cell Research for Predoctoral and Postdoctoral Fellows Panel	2014
Supervisory Board, International Clinical Research Center, Brno, Czech Republic	2014-2022
External Scientific Advisory Committee, NYSTEM, Stem Cell Transplantation Rare Disease Consortium,	2013-2016
Scientific Advisory Board, Centre for the Commercialization of Regenerative Medicine (CCRM) and the Ontario Stem Cell Initiative (OSCI)	2013-2016
Scientific Advisory Board, DEBRA of America	2013-2014
External Advisory Committee, T32 training grant, University of Colorado, Denver	2012-2015
External Advisory Board, EBSTEM Protocol	2012-2015
External Advisory Board, NYSTEM Consortium on Stem Cells in Epidermolysis Bullosa (NYSCEB)	2012-2014
Medical Advisory Committee, Dyskeratosis Congenita Outreach	2010-present
Board, Pioneering Unique Cures for Kids (PUCK)	2010-present
Scientific Advisory Board, Fanconi Anemia Research Fund	2009-2018

Current Memberships and Offices in Professional Societies

American Association for the Advancement of Science	2019-present
Association of American Medical Colleges	2017-present

Association of Academic Health Centers	2017-present
Royal Society of Medicine, Overseas Fellow	2017-present
New York Academy of Sciences	2017-present
St. John's Dermatological Society, London, England (invited member)	2016-present
American Society of Transplantation	2016-present
Pediatric Dermatology Research Alliance (PeDRA)	2015-present
European Society for Gene and Cell Therapy	2012-present
Newborn Translational Research Network, SCID Working Group	2010-present
Society for Investigative Dermatology	2010-present
Stem Cell Therapy for Severe Inherited Skin Fragility Disorders Consortium (German research network, invited member)	2010-present
Pediatric Blood and Marrow Transplant Consortium (elected member)	2010-present
Non-malignant Strategy Group (volunteer co-leader)	2010-present
International Society for Stem Cell Research	2009-present
Zinc Finger Consortium (appointed member)	2008-present
European Hematology Association	2007-present
American Heart Association, Council on Cardiovascular Disease in the Young (elected member)	2006-present
Society of Pediatric Research (elected member)	2005-present
Hematology/Oncology Council (elected member)	served 2017-2019
Perspectives Work Group	served 2017-2019
American Society of Gene & Cell Therapy	2004-present
Children's Oncology Group (investigator)	2003-present
Society for Hematology and Stem Cells	2003-present
American Society of Clinical Oncology	2000-present
American Society of Hematology	2000-present
Scientific Committee on Stem Cells and Regenerative Medicine (appointed member)	2012-2016
American Society of Pediatric Hematology/Oncology	2000-present
Membership Committee (appointed chair)	2007-2013
Program Committee	2004-2007
Non-immune Cytopenias Committee	2004
American Society of Blood and Marrow Transplantation	2000-present
Cell Therapy Medical Tourism Committee	2013-present
American Academy of Pediatrics	1997-present

Visiting Scientist

Cambridge University, Department of Pathology and Addenbrooke's Hospital, UK	1991

HONORS & AWARDS FOR RESEARCH WORK, TEACHING, PUBLIC ENGAGEMENT & SERVICE

University of Minnesota

Membership in the Academic Health Center's Academy for Excellence in Health Research	2016
Distinguished McKnight University Professorship	2015
Innovator in Translational Research Award, Pediatric Faculty Recognition	2014

Edmund Wallace Tulloch and Anna Marie Tulloch Chair in Stem Cell Biology, Genetics and Genomics	2013-2021
Albert D. and Eva J. Corniea Chair	2011-2013
Butterfly Award, Children's Cancer Research Fund	2009
University Pediatrics Foundation Scholar	2005
Margaret Kendrick Hostetter MD Award for Research in Pediatric Subspecialty Training (1st place, the 17th Annual Pediatric Research, Education and Scholarship Symposium)	2003

External Sources

Team Telomere Award for Excellence in Medicine	2022
Sigma Xi – The Scientific Research Honor Society (invited member)	2021-present
Rare Disease Research Hall of Fame, National Organization for Rare Disorders	2013
Minnesota Business Magazine, Leadership in Healthcare, "Change Agent" Award	2013
American Heart Association, Scientist Development Award	2006-2010
Society of Pediatric Research (elected member)	2005-present
NIH/NICHD 5K12HD33692-07 Child Health Research Scholar	2003-2005
Masonic Dietz Family Award for Travel	2003
American Society of Clinical Oncology Young Investigator Award	2003
Amy Strelzer Manasevit Scholars Program Bone Marrow Transplantation Award	2002
National Cancer Institute Travel Award for Abstract Presentation	1995
MD - graduated *summa cum laude*	1990
Academic Achievement Award of the Chancellor, Charles University	1990

RESEARCH AND SCHOLARSHIP

Grants and Contracts

Current External Sources: US Government

NIH/NIAMS R01-AR063070 **Granting Period: 9/1/2020-8/31/2025**
Principal Investigator: Jakub Tolar Direct Costs/Year: $220,000
Skin-targeted Cell Therapy for Recessive Dystrophic Epidermolysis Bullosa
Role: Principal Investigator (Effort 15%)

NIH – P01-CA065493 **Granting Period: 5/5/2023-4/30/2028**
Principal Investigator: John Wagner Direct Costs/Year: $1,364,303
Off-the-shelf Immune Effector Cells for Hematological Malignancies – Core D
Role: Co-Investigator [Effort: 2%]

Current External Sources: Other

Replay Therapeutics, Inc. **Granting Period: 10/1/2022-9/30/2024**
Principal Investigator: Jakub Tolar Direct Costs/Year: $870,318
Replay: DEB Research Project
Role: Principal Investigator (Effort 1%)

EB Research Partnership (CureEB) **Granting Period: 1/1/2024-12/31/2027**
Principal Investigator: Jakub Tolar Direct Costs/Year: $64,320
Gene and Cell Therapy for RDEB

Role: Principal Investigator (Effort 1.5%)

Current University Sources

Tyler Brett Verkaik BMT Research Fund (UMF) **Granting Period: 7/1/2009–no end date**
Principal Investigator: Jakub Tolar Direct Costs/Year: $42,500
Adult Stem Cell Therapy for Dyskeratosis Congenita
Role: Principal Investigator

Past External Sources: US Government

NIH/NIAID R21-AI163731 **Granting Period: 7/7/2021-6/30/2023**
Principal Investigator: Beau Webber Direct Costs/Year: $106,563
Mulitplex Engineered Human Lymphocytes for Therapeutic Protein Delivery
Role: Co-Investigator [Effort: 2%]

NIH/NIAID R21-AI149334 **Granting Period: 6/17/2020-5/31/2022**
Principal Investigator: Bradley Binstadt Direct Costs/Year: $170,059
A Novel Autoinflammatory Skin Disease in a Patient with Mutations in Alpha-T-Catenin
Role: Co-investigator (Effort 3.8%)

NIH/NCI P01-CA065493 (NCE) **Granting Period: 9/25/2015-8/31/2020**
Principal Investigator: John Wagner Direct Costs/Year: Project 2 - $273,682
Biology & Transplantation of the Human Stem Cell, Project 2: Optimizing CAR T Cell Therapy, and Core D: In Vivo Murine Models Core Core D – $160,595
Role: Project 2 Co-Investigator (Effort: 6.0%) and Core D Leader (Effort: 3.8%)

NIH/NCI U54-CA210190 **Granting Period: 8/17/2016-7/31/2021**
Principal Investigator: David Odde and David Largaespada Direct Costs/Year: $1,884,859
Center for Modeling Tumor Cell Migration Mechanics
Role: Co-Investigator (Effort: 3.8%)

NIH/NHGRI R21-HG010380 **Granting Period: 9/17/2018-8/31/2021**
Principal Investigators: Frank Albert and Jakub Tolar Direct Costs/Year: $125,000
Genetic Mapping of Cellular Trait Variation in Single Human Individuals
Role: Co-Principal Investigator (Effort: 3.8%)

NIH/NHLBI R01-CA181385 **Granting Period: 8/5/2014-7/31/2020**
Principal Investigator: Paolo Provenzano Direct Costs/Year: $208,438
Stellate Cells and Their Progenitor Precursors in Pancreas Cancer Progression
Role: Co-Investigator (Effort: 3.04%)

NIH/NCI R01-CA196754 **Granting Period: 7/01/2015-6/30/2019**
Principal Investigator: Michael Verneris/Logan Spector Direct Costs/Year: $372,262
Genetic Epidemiology of Hematopoietic Cell Transplant Outcomes
Role: Co-Investigator (Effort 1%)

NIH/NINDS R01-NS022920 **Granting Period: 3/1/2015-2/29/2018**
Principal Investigator: Harry Orr Direct Costs/Year: $243,353
Molecular Genetics of SCA1
Role: Co-Investigator (Effort 6%)

NIH/NHLBI R01-HL122216 **Granting Period: 12/1/2014-11/30/2018**
Principal Investigator: Jeffrey Miller Direct Costs/Year: $253,570
Inducing NK Cells to Remember and Fight Cancer
Role: Co-Investigator (Effort: 2.28%)

NIH/NIGMS T32-GM113846 **Granting Period: 7/1/2015-9/30/2018**
Principal Investigators: Jakub Tolar and Karen Echeverri Direct Costs/Year: $179,296
Stem Cell Biology Training Program
Role: Principal Investigator (Effort: 3.8%) transferred to Perlingeiro

NIH/NHLBI R01-AR063070 **Granting Period: 4/1/2013-3/31/2018**
Principal Investigator: Jakub Tolar Direct Costs/Year: $331,344
Skin-targeted Cell Therapy for Recessive Dystrophic Epidermolysis Bullosa
Role: Principal Investigator (Effort: 25%)

NIH/NIAMS R01-AR059947 **Granting Period: 9/17/2012-8/31/2017**
Principal Investigators: Jakub Tolar, Dennis Roop Direct Costs/Year: $110,250
Testing the Therapeutic Potential of iPS Cells for Inherited Skin Diseases
Role: Co-Principal Investigator (Effort: 10%)

NIH/SBIR R43-HL124781 **Granting Period: 8/1/2015-7/31/2016**
Principal Investigators: Jakub Tolar/Daniel Fred Carlson Direct Costs/Year: $376,083
Development and Maintenance of T, B and NK-Cell Deficient Swine by Multiplex Gene-Editing and Immune Restoration
Role: Principal Investigator (Effort 6%)

NIH/NHLBI R01-HL108627 **Granting Period: 6/1/2015-5/31/2016**
Principal Investigators: Angela Panoskaltsis-Mortari/Doris Taylor Direct Costs/Year: $621,126
Overcoming Barriers to Bioengineering 3-D Human Lung
Role: Co-Investigator (Effort ended 5/31/2015)

USAMRAA/DOD Dept of the Army W81XWH-12-1-0609 **Granting Period: 9/30/2012-9/29/2015**
Principal Investigators: Jakub Tolar, Dennis Roop Direct Costs/Year: $125,000
Stem Cell-based Therapies for Epidermolysis Bullosa
Role: Co-Principal Investigator (Effort: 10%)

NIH/NCI P01-CA065493 **Granting Period: 7/2/2010-6/30/2015**
Principal Investigator: John Wagner Direct Costs/Year: Project 2 - $231,393
Biology & Transplantation of the Human Stem Cell, Project 2: T Progenitor and Thymic Epithelial Cell Replacement Post-Transplant, and Core D: Human Adoptive Transfer Core Core D – $191,014
Role: Project 2 Co-Investigator and Core D Leader (Effort: 20%)

US Dept of Defense W81XWH-10-1-0874 **Granting Period: 9/15/2010-10/14/2013**
Principal Investigator: Bruce Blazar Direct Costs/Year: $166,619
Correction of Fanconi Anemia Induced Pluripotent Cells by Homologous Recombination
Role: Co-Investigator (Effort: 15%)

NIH/NCI P01-CA065493 **Granting Period: 02/2010-1/30/2013**
Principal Investigator: Phillip McGlave Direct Costs/Year: $42,811
Biology & Transplantation of the Human Stem Cell, Diversity Grant
Role: Co-Investigator

NIH R21-A1079755 **Granting Period: 9/11/2008-8/31/2010**
Principal Investigator: Jakub Tolar Direct Costs/Year: $266,000
Hematopoietic Stem Cell Transposon Therapy for Severe Combined Immunodeficiency
Role: Principal Investigator (Effort: 20%)

NIH/NCI P01-CA065493 **Granting Period: 7/01/2005-6/30/2010**
Principal Investigator: Phillip McGlave Direct Costs/Year: $318,508
Project 2: Biology & Transplantation of the Human Stem Cell
Role: Co-Investigator (Effort: 10%)

NIH/NHLBI R01-HL049997 **Granting Period: 4/01/2005-3/31/2010**

Principal Investigator: Bruce Blazar Direct Costs/Year: $255,057
Cellular Approaches to Reduce BMT Complications
Role: Co-Investigator (Effort: 10%)

NIH/SBIR R44-HL76908 **Granting Period: 12/1/2006–3/31/2009**
Principal Investigators: Jakub Tolar, Scott McIvor Direct Costs/Year: $847,752
Transposon-Mediated Therapy for Fanconi Anemia
Role: Co-Principal Investigator (Effort: 10%)

NIH/Child Health Research Scholar Award **Granting Period: 12/1/2003-11/30/2005**
Principal Investigator: John Schreiber Direct Costs/Year: $90,000
Multipotent Adult Progenitor Cell Effects on Tissue Repair in Fanconi Anemia
Role: Award Recipient (Effort: 70%)

Past External Sources: Other

Rocket Pharmaceuticals, Inc. **Granting Period: 68/1/2020-12/31/2023**
Principal Investigator: Jakub Tolar Direct Costs/Year: $154,558
Impact of FANCA Gene Transfer on CFC MMC Sensitivity – Biomarker of Efficacy in Clinical Trial
Role: Principal Investigator (Effort 1%)

EB Research Partnership **Granting Period: 6/1/2022-5/31/2023**
Principal Investigator: Jakub Tolar Direct Costs/Year: $150,805
Autologous Revertant Mosaic Fibroblasts for Wound Healing in Dystrophic Epidermolysis Bullosa
Role: Principal Investigator (Effort 3%)

CureEB **Granting Period: 9/1/2020-3/31/2023**
Principal Investigator: Jakub Tolar Direct Costs/Year: $114,463
NanoCol: A Nanoneedle Bandage for Topical Intracellular COL7A1 Gene Therapy to Accelerate Wound Healing in Recessive Dystrophic Epidermolysis Bullosa
Role: Principal Investigatory (Effort: 1%)

EB Research Partnership **Granting Period: 11/18/2020-11/17/2021**
Principal Investigator: Jakub Tolar Direct Costs/Year: $952,381
Skin-targeted Cell Therapy for Recessive Dystrophic Epidermolysis Bullosa
Role: Principal Investigator (Effort 13.5%)

Medtronic Inc. **Granting Period: 7/25/2019-7/31/2022**
Principal Investigator: Theresa Reineke Direct Costs/Year: $199,357
Intradiscal Therapy: Mechanism of Action
Role: Project Principal Investigator (Effort)

Seattle Children's Research Inst (EBRP Prime) **Granting Period: 12/1/2016-11/30/2021**
Principal Investigator: David Rawlings Direct Costs/Year: $58,238
Foamy Viral Vector for in vivo Gene Therapy of Recessive Dystrophic Epidermolysis Bullosa
Role: Subaward Principal Investigator (Effort: 3%)

Government of South Korea
Outstanding Overseas Organization Inducement Project **Granting Period: 8/26/2015-8/31/2021**
Co-Principal Investigator, Minnesota: Jakub Tolar Direct Costs/Year: $50,000
Asan-Minnesota Institute for Innovating Transplantation (AMIT)
Role: Co-Principal Investigator (Effort: 3.8%)

Richard M. Schulze Family Foundation **Granting Period: 7/14/2015-7/13/2018**
Principal Investigator: Jakub Tolar Direct Costs/Year: $800,000
Gene Editing and Cell Culture to Create New Skin for Patients

Role: Principal Investigator (Effort: 1%)

Medtronic **Granting Period: 8/1/2019-7/24/2022**
Principal Investigator: Theresa Reineke Direct Costs/Year: $113,637
Intradiscal Therapy: Mechanism of Action
Role: Co-Principal Investigator (Effort: 3.0%)

EBRP/EBMRF/Sohana Research Fund **Granting Period: 1/4/2017-1/3/2020**
Principal Investigator: Jakub Tolar Direct Costs/Year: $952,381
Next Generation Genome Editing for RDEB
Role: Co-investigator (Effort: 13.5%)

Zona Family Fund **Granting Period: 2015-2018**
Principal Investigator: Jakub Tolar Direct Costs/Year: $150,000
Fund for EB Research
Role: Principal Investigator (Effort: 1%)

Sohana Research Fund **Granting Period: 5/6/2016-5/5/2018**
Principal Investigator: Jakub Tolar Direct Costs/Year: $227,273
Stem Cell-based Regeneration of Ocular Surface in Recessive Dystrophic Epidermolysis Bullosa
Role: Principal Investigator (Effort: 1%)

EB Research Partnership & Epidermolysis Bullosa Medical Research Foundation **Granting Period: 9/30/2015-9/29/2016**
Principal Investigator: Jakub Tolar Direct Costs/Year: $545,873
Gene Editing of Type VII Collagen Mutations: Moving Towards Clinical Translation
Role: Principal Investigator (Effort: 1%)

DEBRA International (Sohana Research Fund) **Granting Period: 9/1/2014-8/31/2016**
Principal Investigator: Jakub Tolar Direct Costs/Year: $185,947
Limbal Stem Cells for Treatment of Corneal Wounds in Epidermolysis Bullosa
Role: Principal Investigator (Effort: 1%)

Kidz 1st Fund **Granting Period: 1/13/2014-12/31/2015**
Principal Investigator: Jakub Tolar Direct Costs/Year: $200,000
Seamless Correction of FANCI Mutations in Stem Cells
Role: Principal Investigator

Jackson Gabriel Silver Foundation and EBMRF **Granting Period: 9/30/2013-9/29/2015**
Principal Investigator: Jakub Tolar Direct Costs/Year: $1,091,747
Gene Editing of Type VII Collagen Mutations: Moving Towards Clinical Translation
Role: Principal Investigator (Effort: 1%)

DEBRA International **Granting Period: 1/1/2013-9/9/2015**
Principal Investigator: Dennis Roop Direct Costs/Year: $51,785
Stem Cell-based Therapies for Epidermolysis Bullosa
Role: Subcontract Principal Investigator (Effort: 1%)

DEBRA International **Granting Period: 1/1/2013–12/31/2014**
Principal Investigator: Jakub Tolar Direct Costs/Year: $250,000
A TALEN-Based Approach to Developing Safer, More Effective, Treatments for People with EB
Role: Principal Investigator (Effort: 1%)

MPS I-11-009 University of Pennsylvania **Granting Period: 12/1/2011-6/30/2014**
Principal Investigator: Jakub Tolar Direct Costs/Year: $150,000
Intranasal Delivery of Iduronidase
Role: Principal Investigator (Effort: 5%)

DEBRA International **Granting Period: 7/1/2010-6/30/2012**
Principal Investigator: Jakub Tolar Direct Costs/Year: $110,690

Identification of Collagen Type VII Producing Cell in Human Bone Marrow and Cord Blood
Role: Principal Investigator (Effort: 1%)

BioMarin Pharmaceutical Inc. **Granting Period: 6/27/2011-6/26/2012**
Principal Investigator: Paul Orchard Direct Costs/Year: $29,801
Effect of EUK-207 Compared to N-acetyl cysteine in Cultured x-ALD Patient Cells
Role: Co-Investigator (Effort: 1%)

Epidermolysis Bullosa Medical Research Foundation **Granting Period: 1/20/2010-1/19/2012**
Principal Investigator: Jakub Tolar Direct Costs/Year: $150,000
Innovative Approaches to Curing Epidermolysis Bullosa
Role: Principal Investigator

DEBRA International **Granting Period: 1/01/2010-12/31/2011**
Principal Investigator: Jakub Tolar Direct Costs/Year: $234,000
Identification of Collagen Type VII Producing Cells in Human Bone Marrow and Cord Blood
Role: Principal Investigator (Effort: 5%)

Novartis Pharmaceuticals Corporation **Granting Period: 1/04/2010-11/23/2011**
Principal Investigator: John Wagner Direct Costs/Year: $496,000
Development and Validation of LFU835 HPSC GMP Expansion Protocol
Role: Co-Investigator (Effort: 5%)

Progeria Research Foundation **Granting Period: 7/1/2009-6/30/2011**
Principal Investigator: Jakub Tolar Direct Costs/Year: $100,000
Correction of Human Progeria Induced Pluripotent Stem Cells by Homologous Recombination
Role: Principal Investigator (Effort: 10%)

American Heart Association, National Research Center **Granting Period: 7/01/2006-6/30/2010**
Principal Investigator: Jakub Tolar Direct Costs/Year: $236,364
Role of Immune System in Cardiomyoplasty after Myocardial Ischemia
Role: Principal Investigator (Effort: 20%)

Fanconi Anemia Research Fund **Granting Period: 3/01/2009-2/28/2010**
Principal Investigator: Jakub Tolar Direct Costs/Year: $125,000
Correction of Human FA-Induced Pluripotent Stem Cells by Homologous Recombination
Role: Principal Investigator (Effort: 15%)

Fanconi Anemia Research Fund **Granting Period: 6/1/2004–5/31/2005**
Principal Investigator: Jakub Tolar Direct Costs/Year: $98,622
In Vivo Human Hematopoietic Stem Cell Transgenesis by Transposition
Role: Principal Investigator (Effort: 15%)

ASCO Young Investigator Award **Granting Period: 7/1/2003–6/30/2004**
Principal Investigator: Jakub Tolar Direct Costs/Year: $35,000
Effects of Multipotent Adult Progenitor Cell Infusions on Chemotherapy and Radiation Induced Tissue Injury
Role: Principal Investigator (Effort: 10%)

Fanconi Anemia Research Fund **Granting Period: 8/30/2002-8/29/2003**
Principal Investigator: Jakub Tolar, Bruce Blazar Direct Costs/Year: $70,000
Multipotent Adult Progenitor Cell Effects on Tissue Repair after Bone Marrow Transplantation in Fanconi Anemia
Role: Co-Principal Investigator (Effort: 15%)

National Marrow Donor Program **Granting Period: 7/1/2002–6/30/2003**
Principal Investigator: Jakub Tolar Direct Costs/Year: $32,200
Effect of Multipotent Adult Progenitor Cells on Immune Response

Role: Principal Investigator (Effort: 70%)

Past University Sources

University of Minnesota MN-REACH **Granting Period 9/1/2017-8/30/2018**
Principal Investigator: Timothy O'Brien Direct Costs/Year: $115,000
Midbrain Organoid-Derived Cell Product for Treatment of Parkinson's Disease
Role: Co-Investigator

University of Minnesota Medical School *Grand Challenges Work Group Collaboration Award* **Granting Period: 9/1/2016-8/31/2018**
Principal Investigators: August, Bruin, Conzemius, Demerath, Desai, Gaugler, Haynes, He, Jacobson, Knights, Rothman, Sinha, Termuhlen, Tolar, Wolf Direct Costs/Year: $250,000
Minnesota Precision Medicine and Health Initiative (MinnPMHI): Tailoring Solutions to Advance Physical and Mental Health and Reduce Disparities
Role: Working Group Member

University of Minnesota Medical School **Granting Period: 4/1/2016-3/31/2017**
Principal Investigators: Linda McLoon/Jakub Tolar Direct Costs/Year: $155,036
Research Renewal: Internal Sabbatical Initiative
Role: Co-Principal Investigator, mentor

Winston & Maxine Wallin Neurologic Discovery Fund **Granting Period: 1/1/2016-12/31/2016**
Principal Investigator: Timothy D. O'Brien Direct Costs/Year: $100,000
Cerebral Organoid Model of Andrenoleukodystrophy
Role: Co-Investigator (Effort: 1%)

Masonic Cancer Center Hematologic Malignancy Innovations **Granting Period: 1/1/2015-12/31/2015**
Principal Investigator: Julie Ross (dec) and Jakub Tolar Direct Costs/Year: $25,000
Functional Effects of Mitochondrial Haplotypes in Hematopoietic Cell Transplantation
Role: Principal Investigator (Effort 1%)

UMN Infrastructure Initiative **Granting Period: 7/1/2013-6/30/2015**
Principal Investigator: Kenneth Beckman Direct Costs/Year: $228,763
Single-cell Genomics Instrumentation
Role: Collaborating Investigator

Inst. for Engineering in Medicine Exploratory Seed Grant **Granting Period: 1/9/2014-1/8/2015**
Principal Investigators: Walter Low, Wei-Shou Hu Direct Costs/Year: $20,000
Organ, Tissue, and Cellular Engineering
Role: Co-Investigator

Inst. for Engineering in Medicine Exploratory Seed Grant **Granting Period: 1/9/2014-1/8/2015**
Principal Investigators: Robert Tranquillo, Jakub Tolar Direct Costs/Year: $228,763
Creating an Endothelium from Autologous Mesenchymal Stem Cells
Role: Co-Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 1/3/2012-1/2/2014**
Principal Investigator: Jakub Tolar Direct Costs/Year: $200,000
Natural Gene Stem Cell Therapy for Epidermolysis Bullosa
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 1/3/2012-1/2/2014**
Principal Investigator: Mark Osborn Direct Costs/Year: $200,000
Optimizing Safe Gene Therapy for Genetic Disorders Using Fanconi Anemia as a Model Disease
Role: Co-Investigator

Brainstorm Award, Masonic Cancer Center **Granting Period: 1/1/2013-12/31/2013**
Principal Investigator: Anja-Katrin Bielinsky, Jakub Tolar Direct Costs/Year: $50,000
Comparative Analysis of Repair and Checkpoint Capacities of Fanconi Anemia Cells
Role: Co-Principal Investigator (Effort: 1%)

AHC Faculty Research Development Grant Program **Granting Period: 1/1/2011-12/31/2012**
Principal Investigator: Jaime Modiano, Jakub Tolar Direct Costs/Year: $200,000
Mesenchymal Stem Cells, Tumor Growth, and Immune System Resistance
Role: Co-Principal Investigator (Effort: 1%)

"What If" Grant, Institute for Engineering in Medicine **Granting Period: 3/1/2011-2/28/2012**
Principal Investigator: Jakub Tolar Direct Costs/Year: $8,000
Brain Targeted Therapy for Congenital Enzymopathy
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 7/1/2008–6/30/2010**
Principal Investigator: Mark Osborn Direct Costs/Year: $40,000
Gene-based Therapy for Mucopolysaccharidosis Type I Neuropathology
Role: Co-Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 7/1/2008–6/30/2010**
Principal Investigator: Steven Highfill Direct Costs/Year: $25,000
Myeloid Derived Suppressor Cells for Graft-Versus-Host Disease Prevention
Role: Co-Investigator

Minnesota Medical Foundation **Granting Period: 7/1/2007–7/31/2009**
Principal Investigator: Jakub Tolar Direct Costs/Year: $13,000
Isoflavone-mediated Glycosaminoglycan Reduction Therapy in Hurler Syndrome
Role: Principal Investigator

CCRF Wyckoff Rein-In Sarcoma Foundation **Granting Period: 7/1/2007–6/30/2009**
Principal Investigator: Jakub Tolar Direct Costs/Year: $25,000
Mesenchymal Stem Cells for Targeted Delivery of Anti-cancer Agents
Role: Principal Investigator

Academic Health Center (Seed Grant) **Granting Period: 7/1/2008–6/30/2009**
Principal Investigator: Jakub Tolar Direct Costs/Year: $25,000
Cellular Therapy for Epidermolysis Bullosa
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 7/1/2008–6/30/2009**
Principal Investigator: Jakub Tolar Direct Costs/Year: $50,000
Preclinical Models of Murine Epidermolysis Bullosa
Role: Principal Investigator

Private Foundation **Granting Period: 7/1/2007–6/30/2009**
Principal Investigator: Jakub Tolar Direct Costs/Year: $40,000
Adult Stem Cell Therapy for Monosomy 7
Role: Principal Investigator

Bone Marrow Transplantation Research Fund **Granting Period: 1/1/2007–12/31/2008**
Principal Investigator: Jakub Tolar Direct Costs/Year: $29,986
Adult Stem Cell Therapy in the Murine Model of Progeria
Role: Principal Investigator (Effort: 1%)

Bone Marrow Transplantation Research Fund **Granting Period: 7/1/2007–7/1/2008**
Principal Investigator: Paul Orchard, Jakub Tolar Direct Costs/Year: $15,000
Microglial Cell Engraftment Following Allogeneic Hematopoietic Stem Cell Transplantation
Role: Co-Principal Investigator (Effort: 1%)

Bone Marrow Transplantation Research Fund **Granting Period: 7/1/2007–7/1/2008**
Principal Investigator: Jakub Tolar Direct Costs/Year: $15,000
Direct Comparison of Sleeping Beauty, Tol2, and PiggyBac Transposon Activity in Adult Stem Cells
Role: Principal Investigator (Effort: 1%)

Cancer Center Brainstorm Award **Granting Period: 6/1/2007–6/1/2008**
Principal Investigators: S Hui, M Verneris, J Tolar Direct Costs/Year: $50,000
Influence of Radiation Dose and Dose Rate on Injury to Malignant and Normal Bone Marrow Cells
Role: Co-Principal Investigator (Effort: 1%)

University Grant-in-Aid of Research, Artistry & Scholarship **Granting Period: 7/01/2006-1/15/2008**
Principal Investigator: Jakub Tolar Direct Costs/Year: $29,141
Enzyme Replacement Therapy Effects on Brain Pathology in Hurler Syndrome
Role: Principal Investigator

University Pediatrics Foundation – Equipment Grant **Granting Period: 2008**
Principal Investigator: Jakub Tolar Direct Costs/Year: $11,399
Alpha Imager for Image Acquisition and Analysis of DNA and Protein Gels
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 7/1/2005–6/30/2006**
Principal Investigator: Jakub Tolar Direct Costs/Year: $40,000
Transgenesis of MSCs and MAPCs by Transposition in the Murine Model of Hurler Syndrome
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 7/1/2005–6/30/2006**
Principal Investigator: Jakub Tolar Direct Costs/Year: $40,000
In Vivo Approaches to Improve Cord Blood Engraftment
Role: Principal Investigator

Bone Marrow Transplantation Research Fund **Granting Period: 2/1/2005–1/31/2006**
Principal Investigator: Jakub Tolar Direct Costs/Year: $10,000
Real-time Biodistribution of MSC and MAPC after BMT
Role: Principal Investigator (Effort: %)

Children's Cancer Research Fund – Equipment Grant **Granting Period: 2006**
Principal Investigator: Jakub Tolar Direct Costs/Year: $19,999
Hematopoietic Stem Cell Separator
Role: Principal Investigator

University Pediatrics Foundation – Equipment Grant **Granting Period: 2006**
Principal Investigator: Jakub Tolar Direct Costs/Year: $20,000
Hematopoietic Stem Cell Separator
Role: Principal Investigator

Bone Marrow Transplantation Research Fund **Granting Period: 1/14/2004–1/13/2005**
Principal Investigator: Jakub Tolar Direct Costs/Year: $10,000
Optimization of Hematopoietic Stem Cell Niche with Multipotent Adult Progenitor Cells
Role: Principal Investigator

University Pediatrics Foundation – Equipment Grant **Granting Period: 2005**
Principal Investigator: Jakub Tolar Direct Costs/Year: $6,833
Low Oxygen Incubator for Adult Stem Cells
Role: Principal Investigator

Children's Cancer Research Fund – Equipment Grant **Granting Period: 2005**
Principal Investigator: Jakub Tolar Direct Costs/Year: $12,000
Non-viral Gene Therapy Using Electroporation
Role: Principal Investigator

Children's Cancer Research Fund – Equipment Grant **Granting Period: 2005**
Principal Investigator: Jakub Tolar Direct Costs/Year: $12,146
Low Oxygen Incubator for Adult Stem Cells
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 11/1/2003–10/31/2004**
Principal Investigator: Jakub Tolar Direct Costs/Year: $40,000
Multipotent Adult Progenitor Cell Effects on Graft-versus-Host Immune Response
Role: Principal Investigator

Bone Marrow Transplantation Research Fund **Granting Period: 4/1/2003–3/31/2004**
Principal Investigator: Jakub Tolar Direct Costs/Year: $10,000
Real-time Homing Patterns of Multipotent Adult Progenitor Cells
Role: Principal Investigator

Children's Cancer Research Fund (CCRF) **Granting Period: 9/1/2002-8/31/2003**
Principal Investigator: Jakub Tolar Direct Costs/Year: $40,000
Multipotent Adult Progenitor Cell Effects on Tissue Repair after Chemotherapy in Fanconi Anemia
Role: Principal Investigator

Bone Marrow Transplantation Research Fund **Granting Period: 4/1/2002–3/31/2003**
Principal Investigator: Jakub Tolar Direct Costs/Year: $10,000
Engraftment of Murine MAPCs in vivo after in utero and Early Postnatal Transfer
Role: Principal Investigator

Children's Cancer Research Fund – Equipment Grant **Granting Period: 2003**
Principal Investigator: Jakub Tolar Direct Costs/Year: $25,000
Non-viral Gene Therapy for Severe Combined Immunodeficiency
Role: Principal Investigator

Minnesota Medical Foundation – Equipment Grant **Granting Period: 2003**
Principal Investigator: Jakub Tolar Direct Costs/Year: $25,000
Non-viral Gene Therapy for Severe Combined Immunodeficiency
Role: Principal Investigator

Active Clinical Research Trials - Principal Investigator

MT2015-36 NCT02670837	Study of Epidermal Grafting Using the CELLUTOME™ Epidermal Harvesting System for the Treatment of Individual Lesions in Persons with Epidermolysis Bullosa
MT2015-20 NCT02582775	Biochemical Correction of Severe Epidermolysis Bullosa by Allogeneic Cell Transplantation and Serial Donor Mesenchymal Cell Infusions
MT2013-34C NCT02162420	Hematopoietic Stem Cell Transplant for Dyskeratosis Congenita or Severe Aplastic Anemia: Standard of Care Considerations
MT2009-09 NCT01033552	Biochemical Correction of Severe Epidermolysis Bullosa by Allogeneic Stem Cell Transplantation
MT2007-01R NIH	Etiologic Investigation of Cancer Susceptibility in Inherited Bone Marrow Failure Syndromes: A Natural History Study

Active Clinical Research Trials - Co-Investigator or Treating Physician

29 active trials (not listed)

Publications [H-Index = 58, Complete list of published work at NIH NCBI MyBibliography

Peer-Reviewed Publications – Medical

1. McGrath JA, Tolar J. New gene therapies for dystrophic epidermolysis bullosa: progress, promise, and persistent gaps. Br J Dermatol. 2025 Aug 13:ljaf321. doi: 10.1093/bjd/ljaf321. Epub ahead of print. PMID: 40799143.
2. Chen K, Yong J, Zauner R, Wally V, Whitelock J, Sajinovic M, Kopecki Z, Liang K, Scott KF, Mellick AS. Chondroitin Sulfate Proteoglycan 4 as a Marker for Aggressive Squamous Cell Carcinoma. Cancers (Basel). 2022 Nov 13;14(22):5564. PMID: 36428658; PMCID: PMC9688099.
3. Lee CAA, Wu S, Chow YT, Kofman E, Williams V, Riddle M, Eide C, Ebens CL, Frank MH, Tolar J, Hook KP, AlDubayan SH, Frank NY. Accelerated Aging and Microsatellite Instability in Recessive Dystrophic Epidermolysis Bullosa-Associated Cutaneous Squamous Cell Carcinoma. J Invest Dermatol. 2024 Jul. doi: 10.1016/j.jid.2023.11.025. PMID: 38272206.
4. Wang C, Gu C, Popp C, Vashisth P, Mustfa SA, Martella DA, Spiteri C, McLennan S, Sun N, Riddle M, Eide CR, Parsons M, **Tolar J,** McGrath JA, Chiappini C. Integrating Porous Silicon Nanoneedles within Medical Devices for Nucleic Acid Nanoinjection. ACS Nano. 2024 May 10. https://doi.org/10.1021/acsnano.4c00206. PMID: 38726598. Epub ahead of print.
5. Liu D, **Tolar J**… Efficient site-specific integration of large genes in mammalian cells via continuously evolved recombinases and prime editing. Nat Biomed Eng. 2024 May 9. Accepted.
6. Osborn MJ,…**Tolar J**….Twin prime editing mediated exon skipping/reinsertion for restored collagen VII expression in recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2024 April 26. Accepted.
7. Stone W, Strege C, Miller W, Geurts AM, Grzybowski M, Riddle M, Lees C, Eide C, Keene DR, Tufa SF, Seelig D, McGrath J, **Tolar J**. Creation and characterization of novel rat model for recessive dystrophic epidermolysis bullosa: Frameshift mutation of the *Col7a1* gene leads to severe blistered phenotype. PLoS One. 2024 May 9;19(5):e0302991. https://doi.org/10.1371/journal.pone.0302991. PMID: 38722855. PMCID: PMC11081381.
8. Strege C, Miller WC, Eide C, Hubbard J, **Tolar J**. Methods for decreasing preweaning mortality in a fragile mouse model of hypomorphic collagen VII deficiency. Compar Med. 2024 Mar 20;74(2):99-104. https://doi.org/10.30802/AALAS-CM-23-000087. PMID: 38508685. PMCID: PMC11078276.
9. Saha A, Palchaudhuri R, Lanieri L, Hyzy S, Riddle MJ, Panthera J, Eide C, **Tolar J**, Panoskaltsis-Mortari A, Gorfinkel L, Tkachev V, Gerdemann U, Alvarez-Calderon F, Palato ER, MacMillan ML, Wagner JE, Kean LS, Osborn M, Kiem HP, Scadden DT, Olson LM, Blazar BR. Alloengraftment without significant toxicity or GVHD in CD45 antibody-drug conjugate conditioned Fanconi anemia mice. Blood. 2024 Mar 6:blood.2023023549. https://doi.org/10.1182/blood.2023023549. PMID: 38447038. Epub ahead of print.
10. Lee CAA, Wu S, Chow YT, Kofman E, Williams V, Riddle M, Eide C, Ebens CL, Frank MH, **Tolar J**, Hook KP, AlDubayan SH, Frank NY. Accelerated aging and microsatellite instability in recessive dystrophic epidermolysis bullosa-associated cutaneous squamous cell carcinoma. J Invest Dermatol. 2024 Jan 23:S0022-202X(24)00022-8. https://doi.org/10.1016/j.jid.2023.11.025. PMID: 38272206. Epub ahead of print.
11. Doman JL, Pandey S, Neugebauer ME, An M, Davis JR, Randolph PB, McElroy A, Gao XD, Raguram A, Richter MF, Everette KA, Banskota S, Tian K, Tao YA, **Tolar J**, Osborn MJ, Liu DR. Phage-assisted evolution and protein engineering yield compact, efficient prime editors. Cell. 2023 Aug 31;186(18):3983-4002.e26. https://doi.org/10.1016/j.cell.2023.07.039. PMID: 37657419. PMCID: PMC10482982.
12. Feser CJ, Williams JM, Lammers DT, Bingham JR, Eckert MJ, **Tolar J**, Osborn MJ. Engineering human cells expressing CRISPR/Cas9-synergistic activation mediators for recombinant protein production. Int J Mol Sci. 2023 May 9;24(10):8468. https://doi.org/10.3390/ijms24108468. PMID: 37239814. PMCID: PMC10218281.
13. Dieter K, Niebergall-Roth E, Daniele C, Fluhr S, Frank NY, Ganss C, Kiritsi D, McGrath JA, **Tolar J**, Frank MH, Kluth MA. ABCB5+ mesenchymal stromal cells facilitate complete and durable wound closure in recessive dystrophic epidermolysis bullosa. Cytotherapy. 2023 Jul;25(7):782-788. https://doi.org/10.1016/j.jcyt.2023.01.015. PMID: 36868990. PMCID: PMC10257763.

14. Ramos TL, Bolivar-Wagers S, Jin S, Thangavelu G, Simonetta F, Lin PY, Hirai T, Saha A, Koehn BH, L Su L, Picton LK, Baker J, Lohmeyer JK, Riddle MJ, Eide C, **Tolar J**, Panoskaltsis-Mortari A, Wagner JE, Garcia KC, Negrin RS, Blazar BR. Prevention of acute GVHD disease using an orthogonal IL-2/IL-2Rβ system to selectively expand regulatory T-cells in vivo. Blood. 2023 Mar 16;141(11):1337-52. https://doi.org/10.1182/blood.2022018440. PMID: 36564052. PMCID: PMC10082364.

15. Neugebauer ME, Hsu A, Arbab M, Krasnow NA, McElroy AN, Pandey S, Doman JL, Huang TP, Raguram A, Banskota S, Newby GA, **Tolar J**, Osborn MJ, Liu DR. Evolution of an adenine base editor into a small, efficient cytosine base editor with low off-target activity. Nat Biotechnol. 2023 May;41(5):673-85. https://doi.org/10.1038/s41587-022-01533-6. PMID: 36357719. PMCID: PMC10188366.

16. Miller W, Pruett CLH, Stone W, Eide C, Riddle M, Popp C, Yousefzadeh M, Lees C, Seelig D, Thompson E, Orr H, Niedernhofer L, **Tolar J**. Accumulation of senescence observed in spinocerebellar ataxia type 7 mouse model. PLoS ONE. 2022 Oct 17;17(10):e0275580. https://doi.org/10.1371/journal.pone.0275580. eCollection 2022. PMID: 36251631. PMCID: PMC9576077.

17. Sipe CJ, Kluesner MG, Bingea SP, Lahr WS, Andrew AA, Wang MJ, DeFeo AP, Hinkel TL, Laoharawee K, Wagner JE, MacMillan ML, Vercellotti GM, **Tolar J**, Osborn MJ, McIvor RS, Webber BR, Moriarity BS. Correction of Fanconi anemia mutations using digital genome engineering. Int J Mol Sci. 2022, 23 (15), 8416. https://doi.org/10.3390/ijms23158416. PMID: 35955545. PMCID: PMC9369391.

18. Bogart K, Hemmesch A, Barnes E, Blissenbach T, Beisang A, Engel P; Chloe Barnes Advisory Council on Rare Diseases (**Tolar J**, member). Healthcare access, satisfaction, and health-related quality of life among children and adults with rare diseases. Orphanet J Rare Dis. 2022 May 12;17(1):196. https://doi.org/10.1186/s13023-022-02343-4. PMID: 35549731. PMCID: PMC9096775.

19. Feser CJ, Lees CJ, Lammers DT, Riddle MJ, Bingham JR, Eckert MJ, **Tolar J**, Osborn MJ. Engineering CRISPR/Cas9 for multiplexed recombinant coagulation factor production. Int J Mol Sci. 2022 May 3;23(9):5090. https://doi.org/10.3390/ijms23095090. PMID: 35563479. PMCID: PMC9100926.

20. Riedl JA, Riddle M, Xia L, Eide C, Boull C, Ebens CL, **Tolar J.** Interrogation of RDEB epidermal allografts after BMT reveals co-expression of collagen VII and keratin 15 with proinflammatory immune cells and fibroblasts. J Invest Dermatol. 2022 Sep;142(9):2424-2434. https://doi.org/10.1016/j.jid.2022.01.034. PMID: 35304249. PMID: 35304249. PMCID: PMC9391265.

21. Thompson EL, Pickett-Leonard M, Riddle MJ, Chen W, Albert FW, **Tolar J**. Genes and compounds that increase type VII collagen expression as potential treatments for dystrophic epidermolysis bullosa. Exp Dermatol. 2022 Jul;31(7):1065-1075. https://doi.org/10.1111/exd.14555. PMID: 35243691. PMCID: PMC9318024.

22. Braunlin E, Abrahante JE, McElmurry R, Evans M, Smith M, Seelig D, O'Sullivan MG, **Tolar J**, Whitley CB, McIvor RS. Contribution of the innate and adaptive immune systems to aortic dilation in murine mucopolysaccharidosis type I. Mol Genet Metab. 2022 Mar;135(3):193-205. https://doi.org/10.1016/j.ymgme.2022.01.104. PMID: 35165009. PMCID: PMC9109621.

23. Stefanski HE, Xing Y, Nicholls J, Jonart L, Goren E, Taylor PA, Mills AA, Riddle M, McGrath J, **Tolar J**, Hollander GA, Blazar BR. P63 targeted deletion under the FOXN1 promoter disrupts pre-and post-natal thymus development, function and maintenance as well as induces severe hair loss. PLoS ONE. 2022 Jan 25;17(1):e0261770. eCollection 2022. https://doi.org/10.1371/journal.pone.0261770. PMID: 35077450 PMCID: PMC8789144.

24. Meyer-Mueller C, Osborn MJ, **Tolar J**, Boull C, Ebens CL. Revertant Mosaicism in Epidermolysis Bullosa. Biomedicines. 2022 Jan 6;10(1):114. https://doi.org/10.3390/biomedicines10010114. PMID: 35052793 PMCID: PMC8773552.

25. Knipping F, Newby GA, Eide CR, McElroy AN, Nielsen SC, Smith K, Fang Y, Cornu TI, Costa C, Gutierrez-Guerrero A, Bingea SP, Feser CJ, Steinbeck B, Hippen KL, Blazar BR, McCaffrey A, Mussolino C, Verhoeyen E, **Tolar J**, Liu DR, Osborn MJ. Disruption of HIV-1 Co-Receptors CCR5 and CXCR4 in Primary Human T Cells and Hematopoietic Stem and Progenitor Cells Using Base Editing. Mol Ther. 2022 Jan 5;30(1):130-144. https://doi.org/10.1016/j.ymthe.2021.10.026. PMID: 34737067. PMCID: PMC8753564.

26. Walton K, Walker K, Riddle M, Koehn BH, Reff J, Sagatys EM, Linden MA, Pidala J, Kim J, Lee MC, Kiluk JV, Hui JYC, Yun SY, Xing Y, Stefanski H, Lawrence HR, Lawrence NJ, **Tolar J**, Anasetti C, Blazar BR, Sebti SM, Betts BC. Dual JAK2/Aurora kinase A inhibition prevents human skin graft rejection by allo-inactivation and ILC2-mediated tissue repair. Am J Transplant. 2022 Mar;22(3):717-730. https://doi.org/10.1111/ajt.16870. PMID: 34668635. PMCID: PMC8897228.
27. Kiritsi D, Kieter K, Niebergall-Roth E, Fluhr S, Daniele C, Esterlechner J, Sadeghi S, Ballikaya S, Erdinger L, Schauer F, Gewert S, Laimer M, Bauer JW, Hovnanian A, Zambruno G, El Hachem M, Bourrat E, Papanikolaou M, Petrof G, Kitzmüller S, Ebens CL, Frank MH, Frank NY, Ganss G, Martinez AE, McGrath JA, **Tolar J**, Kluth MA. Clinical trial of ABCB5-positive mesenchymal stem cells for recessive dystrophic epidermolysis bullosa. JCI Insight. 2021 Nov 22;6(22):e151922. https://doi.org/10.1172/jci.insight.151922. PMID: 34665781. PMCID: PMC8663784.
28. Kramer A, Astuti Y, Elfstrum A, Lehrke MJ, **Tolar J**, Blazar BR, Blake A, Taisto M, Furcich JW, Nolan EE, Durose WW, Webber BR, Geisness A, Wood DK, Lund T. An irradiated marrow niche reveals a small non-collagenous protein mediator of homing, dermatopontin. Blood Adv. 2021 Sep 28;5(18):3609-3622. https://doi.org/10.1182/bloodadvances.2021004475. PMID: 34448828. PMCID: PMC8945574.
29. Spector LG, Spellman SR, Thyagarajan B, Beckman KB, Hoffmann C, Garbe J, Hahn T, Sucheston-Campbell L, Richardson M, De For TE, **Tolar J**, Verneris MR. Neither donor nor recipient mitochondrial haplotypes are associated with unrelated donor transplant outcomes: A Validation Study from the CIBMTR. Transplant Cell Ther. 2021 Oct;27(10):836.e1-836.e7. https://doi.org/10.1016/j.jtct.2021.06.019. PMID: 34174468. PMCID: PMC8478819.
30. Riedl J, Pickett-Leonard M, Eide C, Kluth MA, Ganss C, Frank NY, Frank MH, Ebens CL, **Tolar J**. ABCB5+ dermal mesenchymal stromal cells with favorable skin homing and local immunomodulation for recessive dystrophic epidermolysis bullosa treatment. Stem Cells. 2021 Jul;39(7):897-903. https://doi.org/10.1002/stem.3356. PMID: 33609408. PMCID: PMC8278965.
31. Twaroski K, Chen W, Pickett-Leonard M, **Tolar J**. Role of transforming growth factor-β1 in recessive dystrophic epidermolysis bullosa squamous cell carcinoma. Exper Dermatol. 2021 May;30(5):664-75. https://doi.org/10.1111/exd.14304. PMID: 33595864.
32. Osborn MJ, Bhardwaj A, Bingea S, Knipping F, Feser C, Lees C, Collins D, Steer C, Blazar B, **Tolar J**. CRISPR/Cas9-based lateral flow and fluorescence diagnostics. Bioengineering. 2021, 8(2):23. https://doi.org/10.3390/bioengineering8020023. PMID: 33673107. PMCID: PMC7918862.
33. Sarver A, Xie C, Riddle M, Forster C, Wang X, Lu H, Wagner W, **Tolar J**, Hallstrom T. Retinoblastoma tumor cell proliferation is negatively associated with an immune gene expression signature and increased immune cells. Lab Invest. 2021 Jun;101(6):701-18. https://doi.org/10.1038/s41374-021-00573-x. PMID: 33658609.
34. Vanden Oever M, Muldoon D, Mathews W, **Tolar J.** Fludarabine modulates expression of type VII collagen during haematopoietic stem cell transplantation for recessive dystrophic epidermolysis bullosa. Br J Dermatol. 2021 Aug;185(2):380-390. https://doi.org/10.1111/bjd.19757. PMID: 33368156. PMCID: PMC8274730.
35. Yannopoulos D, Bartos J, Raveendran G, Walser E, Connett J, Murray TA, Collins G, Zhang L, Kalra R, Kosmopoulos M, John R, Shaffer A, Frascone RJ, Wesley K, Conterato M, Biros M, **Tolar J**, Aufderheide TP. Advanced reperfusion strategies for patients with out-of-hospital cardiac arrest and refractory ventricular fibrillation (ARREST): a phase 2, single centre, open-label, randomised controlled trial. Lancet. 2020 Dec;396(10265):1807-16. https://doi.org/10.1016/S0140-6736(20)32338-2. PMID: 33197396. PMCID: PMC7856571.
36. Bartos JA, Frascone RJ, Conterato M, Wesley K, Lick C, Sipprell K, Vuljaj N, Burnett A, Peterson BK, Simpson N, Ham K, Bruen C, Woster C, Haley KB, Moore J, Trigger B, Hodgson L, Harkins K, Kosmopoulos M, Aufderheide TP, **Tolar J**, Yannopoulos D. The Minnesota mobile extracorporeal cardiopulmonary resuscitation consortium for treatment of out-of-hospital refractory ventricular fibrillation: Program description, performance, and outcomes. EClinicalMedicine. 2020 Nov 13;29-30:100632. https://doi.org/10.1016/j.eclinm.2020.100632. PMID: 33437949. PMCID: PMC7788435.

37. van Bruggen C, Punihaole D, Keith AR, Schmitz AJ, **Tolar J**, Frontiera RR, Reineke TM. Quinine copolymer reporters promote efficient intracellular DNA delivery and illuminate a protein-induced unpackaging mechanism. Proc Natl Acad Sci U S A. 2020 Dec 29;117(52):32919-28. https://doi.org/10.1073/pnas.2016860117. PMID: 33318196. PMCID: PMC7777095.
38. Ebens CL, McGrath JA, Riedl JA, Keith AR, Lilja G, Rusch S, Keene DR, Riddle MJ, Shanley R, Van Heest AE, **Tolar J**. Immune tolerance of allogeneic hematopoietic cell transplantation supports donor epidermal grafting of recessive dystrophic epidermolysis bullosa chronic wounds. Br J Dermatol. 2021 Jun;184(6):1161-1169. https://doi.org/10.1111/bjd.19503. PMID: 32866988. PMCID: PMC7914301.
39. Kirchner VA, Twaroski K, Wysoglad K, Algoo J, LeCluyse EL, Song GW, Tak E, Chen W, Lee S-G, Pruett TL, **Tolar J**. Reprogramming of human hepatic non-parenchymal cells: Step-by-step protocol. Curr Protoc Stem Cell Biol. 2020 53(1):e112. https://doi.org/10.1002/cpsc.112. PMID: 32433018.
40. Le SQ, Nestrasil I, Kan SH, Egeland M, Cooper JD, Elashoff D, Guo R, **Tolar J**, Yee JK, Dickson PI. Myelin and lipid composition of the corpus callosum in mucopolysaccharidosis type I mice. Lipids. 2020 Jun; 55:627-37. https://doi.org/10.1002/lipd.12261. PMID: 32537944. PMCID: PMC7992919.
41. Tietzová I, Twaroski K, Eide C, Ostrander JH, Crawford PA, **Tolar J**. Impaired mitochondrial and metabolic function of fibroblasts derived from patients with recessive dystrophic and junctional epidermolysis bullosa. Eur Med J Dermatol. 2020;8(1):75-83. https://www.emjreviews.com/dermatology/article/impaired-mitochondrial-and-metabolic-function-of-fibroblasts-derived-from-patients-with-recessive-dystrophic-and-junctional-epidermolysis-bullosa/
42. Yellamilli A, Ren Y, McElmurry RT, Lambert JP, Gross P, Mohsin S, Houser SR, Elrod JW, **Tolar J**, Garry DJ, van Berlo JH. Abcg2-expressing side population cells contribute to cardiomyocyte renewal through fusion. FASEB J. 2020 Apr;34(4):5642-57. https://doi.org/10.1096/fj.201902105R. PMID: 32100368. PMCID: PMC7136149.
43. Kang E, Kim YM, Seo GH, Oh A, Yoon HM, Ra YS, Kim EK, Kim H, Heo SH, Kim GH, Osborn MJ, **Tolar J**, Yoo HW, Lee BH. Phenotype categorization of neurofibromatosis type I and correlation to NF1 mutation types. J Hum Genet. 2020 Jan;65(2):79-89. https://doi.org/10.1038/s10038-019-0695-0. PMID: 31776437.
44. Kirchner VA, Tak E, Kim K, LeCluyse EL, Niedernhofer LJ, Soldatow V, Lee J, Kim J, **Tolar J**, Song GW, Pruett TL. The evolving microenvironment of the human hepatocyte: Healthy vs. cirrhotic liver vs. isolated cells. Tissue Cell. 2020-02-01, Volume 62, Article 101310. https://doi.org/10.1016/j.tice.2019.101310. PMID: 32433018
45. Tan Z, Jiang Y, Ganewatta MS, Kumar R, Keith A, Twaroski K, Pengo T, **Tolar J**, Lodge TP, Reineke TM. Block polymer micelles enable CRISPR/Cas9 ribonucleoprotein delivery: Physicochemical properties affect packaging mechanisms and gene editing efficiency. Macromolecules. 2019 Nov 12;52(21):8197-206. https://doi.org/10.1021/acs.macromol.9b01645.
46. Kim YM, Yum MS, Heo SH, Kim T, Jin HK, Bae JS, Seo GH, Oh A, Yoon HM, Lim HT, Kim HW, Ko TS, Lim HS, Osborn MJ, **Tolar J**, Cozma C, Rolfs A, Zimran A, Lee BH, Yoo HW. Pharmacologic properties of high-dose ambroxol in four patients with Gaucher disease and myoclonic epilepsy. J Med Genet. 2020 Feb;57(2):124-31. https://doi.org/10.1136/jmedgenet-2019-106132. PMID: 31649052. PMCID: PMC7029246.
47. Lund TC, Miller WP, Liao AY, **Tolar J**, Shanley R, Pasquali M, Sando N, Bigger BW, Polgreen LE, Orchard PJ. Post-transplant laronidase augmentation for children with Hurler syndrome: biochemical outcomes. Sci Rep. 2019 Oct 1;9(1):14105. https://doi.org/10.1038/s41598-019-50595-1. PMID: 31575939. PMCID: PMC6773848.
48. Polgreen LE, Lund TC, Braunlin E, **Tolar J**, Miller BS, Fung E, Whitley CB, Eisengart JB, Northrop E, Rudser K, Miller WP, Orchard PJ. Clinical trial of laronidase in Hurler syndrome after hematopoietic cell transplantation. Pediatr Res. 2020 Jan;87(1):104-11. https://doi.org/10.1038/s41390-019-0541-2. PMID: 31434105. PMCID: PMC6960090.
49. Osborn MJ, Newby GA, McElroy AN, Knipping F, Nielsen SC, Riddle MJ, Xia L, Chen W, Eide CR, Webber BR, Wandall HH, Dabelsteen S, Blazar BR, Liu DR, **Tolar J.** Base editor correction of *COL7A1* in recessive dystrophic epidermolysis bullosa patient-derived fibroblasts and iPSCs. J Invest Derm. 2020 Feb;140(2):338-47.e5. https://doi.org/10.1016/j.jid.2019.07.701. PMID: 31437443. PMCID: PMC6983342.

50. Chen W, Twaroski K, Eide C, Riddle MJ, Orchard PJ, **Tolar J.** TCIRG1 transgenic rescue of osteoclast function using induced pluripotent stem cells derived from patients with infantile malignant 2 autosomal recessive osteopetrosis. J Bone Joint Surg. 2019 Nov 6;101(21):1939-47. https://doi.org/10.2106/JBJS.19.00558. PMID: 31567691.

51. Tryon RK, **Tolar J**, Preusser SM, Riddle MJ, Keene DR, Bower M, Thyagarajan B, Ebens CL. A homozygous frameshift variant in the KRT5 gene is compatible with life and results in severe recessive epidermolysis bullosa simplex. JAAD Case Rep. 2019 July;5(7):576-579. https://doi.org/10.1016/j.jdcr.2019.03.025. PMID: 31312705. PMCID: PMC6610641.

52. Lwin SM, Syed F, Di WL, Kadiyirire T, Liu L, Guy A, Petrova A, Abdul-Wahab A, Reid F, Phillips R, Elstad M, Georgiadis C, Aristodemou S, Lovell PA, McMillan JR, Mee J, Miskinyte S, Titeux M, Ozoemena L, Pramanik R, Serrano S, Rowles R, Maurin C, Orrin E, Martinez-Queipo M, Rashidghamat E, Tziotzios C, Onoufriadis A, Chen M, Chan L, Farzaneh F, Del Rio M, **Tolar J**, Bauer JW, Larcher F, Antoniou MN, Hovnanian A, Thrasher AJ, Mellerio JE, Qasim W, McGrath JA. Safety and early efficacy outcomes for lentiviral fibroblast gene therapy in recessive dystrophic epidermolysis bullosa. JCI Insight. 2019 June 6;4(11). pii: 126243. https://doi.org/10.1172/jci.insight.126243. PMID: 31167965. PMCID: PMC6629162.

53. Eisengart JB, Pierpont EI, Kaizer AM, Rudser KD, King KE, Pasquali M, Polgreen LE, Dickson PI, Le SQ, Miller WP, **Tolar J**, Orchard PJ, Lund TC. Intrathecal enzyme replacement for Hurler syndrome: biomarker association with neurocognitive outcomes. Genet Med. 2019 Nov;21(11):2552-60. https://doi.org/10.1038/s41436-019-0522-1. PMID: 31019279. PMCID: PMC6831510.

54. Twaroski K, Eide C, Riddle MJ, Xia L, Lees CJ, Chen W, Mathews W, Keene DR, McGrath JA, **Tolar J**. Revertant mosaic fibroblasts in recessive dystrophic epidermolysis bullosa. Br J Dermatol. 2019 Dec;181(6):1247-1253. https://doi.org/10.1111/bjd.17943. PMID: 30924923. PMCID: PMC6766431.

55. Ebens CL, McGrath JA, Tamai K, Hovnanian A, Wagner JE, Riddle MJ, Keene DR, DeFor TE, Tryon R, Chen M, Woodley DT, Hook K, **Tolar J**. Bone marrow transplant with post-transplant cyclophosphamide for recessive dystrophic epidermolysis bullosa expands the related donor pool and permits tolerance of non-hematopoietic cellular grafts. Br J Dermatol. 2019 Dec;181(6):1238-1246. https://doi.org/10.1111/bjd.17858. PMID: 30843184. PMCID: PMC6731170.

56. Boyle WS, Chen W, Rodriguez A, Linn S, **Tolar J**, Lozano K, Reineke TM. Ternary composite nanofibers containing chondroitin sulfate scavenge inflammatory chemokines from solution and prohibit squamous cell carcinoma migration. ACS Appl Bio Mater. 2019 Feb 9;2(2):619-24. https://doi.org/10.1021/acsabm.8b00690.

57. Boyle WS, Twaroski K, Woska EC, **Tolar J**, Reineke TM. Molecular additives significantly enhance glycopolymer-mediated transfection of large plasmids and functional CRISPR-Cas9 transcription activation ex vivo in primary human fibroblasts and induced pluripotent stem cells. Bioconjug Chem. 2019 Feb 20;30(2):418-431. https://doi.org/10.1021/acs.bioconjchem.8b00760. PMID: 30525482.

58. Xing Y, Smith MJ, Goetz CA, McElmurry RT, Parker SL, Min D, Hollander GA, Weinberg KI, **Tolar J**, Stefanski HE, Blazar BR. Thymic epithelial cell support of thymopoiesis does not require *Klotho*. J Immunol. 2018 Dec 1;201(11):3320-3328. https://doi.org/10.4049/jimmunol.1800670. PMID: 30373854. PMCID: PMC6275142.

59. Jung JP, Lin WH, Riddle MJ, **Tolar J**, Ogle B. A 3D *in vitro* model of the dermoepidermal junction amenable to mechanical testing. J Biomed Mater Res Part A. 2018 Dec;106(12):3231-3238. https://doi.org/10.1002/jbm.a.36519. PMID: 30208260. PMCID: PMC6283247.

60. Banga A, Dutton J, Mysz M, Norris B, Flory C, Ogle B, **Tolar J**, Schumacher R. Engraftment of reprogrammed human bile duct cells transiently rescues diabetes in mice. J Stem Cell Res Ther. 2018; 8:433. https://doi.org/10.4172/2157-7633.1000432.

61. Fioredda F, Iacobelli S, Korthof ET, Knol C, van Biezen A, Bresters D, Veys P, Yoshimi A, Fagioli F, Mats B, Zecca M, Faraci M, Miano M, Arcuri L, Maschan M, O'Brien T, Diaz MA, Sevilla J, Smith O, Peffault de Latour R, de la Fuente J, Or R, Van Lint MT, **Tolar J**, Aljurf M, Fisher A, Skorobogatova EV, Diaz de Heredia C, Risitano A, Dalle JH, Sedláček P, Ghavamzadeh A, Dufour C. Outcome of haematopoietic stem cell transplantation in dyskeratosis congenita. Br J Haematol. 2018 Jul 9;183:110-8. https://doi.org/10.1111/bjh.15495. PMID: 29984823.

62. Pennell CA, Barnum JL, McDonald-Hyman CS, Panoskaltsis-Mortari A, Riddle MJ, Xiong Z, Loschi M, Thangavelu G, Campbell HM, Storlie MD, Refaeli Y, Furlan SN, Jensen MC, Kean LS, Miller JS, **Tolar J**, Osborn MJ, Blazar BR. Human CD19-targeted mouse T cells induce B Cell aplasia and toxicity in human CD19 transgenic mice. Mol Ther. 2018 Jun 6;26(6):1423-1434. https://doi.org/10.1016/j.ymthe.2018.04.006. PMID: 29735365. PMCID: PMC5986973.

63. Zhu Z, Guo SZ, Hirdler T, Eide C, Fan X, **Tolar J**, McAlpine MC. 3D printed functional and biological materials on moving freeform surfaces. Adv Mater. 2018 Jun;30(23):e1707495. https://doi.org/10.1002/adma.201707495. PMID: 29691902. PMCID: PMC6310159.

64. Zhang H, Lee CAA, Li Z, Garbe JR, Eide CR, Petegrosso R, Kuang R, **Tolar J**. A multitask clustering approach for single-cell RNA-seq analysis in recessive dystrophic epidermolysis bullosa. PLOS Comput Biol. 2018 Apr 9;14(4):e1006053. https://doi.org/10.1371/journal.pcbi.1006053. eCollection 2018 Apr. PMID: 29630593. PMCID: PMC5908193.

65. Osborn MJ, Lees CJ, McElroy AN, Merkel SC, Eide CR, Mathews W, Feser CJ, Tschann M, McElmury RT, Webber BR, Kim CJ, Blazar BR, **Tolar J.** CRISPR/Cas9-based cellular engineering for targeted gene overexpression. Int J Mol Sci. 2018 Mar 22;19(4). pii: E946. https://doi.org/10.3390/ijms19040946. PMID: 29565806. PMCID: PMC5979553.

66. Lee CAA, Seo HS, Armien AG, Bates FS, **Tolar J**, Azarin SM. Modeling and rescue of defective blood-brain barrier function of induced brain microvascular endothelial cells from childhood cerebral adrenoleukodystrophy patients. Featured article, Fluids Barriers CNS. 2018 Apr 4;15(1):9. https://doi.org/10.1186/s12987-018-0094-5. PMID: 29615068. PMCID: PMC5883398.

67. **Tolar J,** Bauer JW, Kaplan DH, Leachman SA, McGrath JA, Paller AS, Griffith-Bauer KA, Stemwedel CE, Kulesz-Martin MF. Montagna Symposium 2017-Precision Dermatology: Next Generation Prevention, Diagnosis, and Treatment. J Invest Dermatol. 2018 Jun;138(6):1243-1248. https://doi.org/10.1016/j.jid.2018.02.039. PMID: 29550416. PMCID: PMC5970097.

68. Rousseaux MWC, Tschumperlin T, Lu HC, Lackey EP, Bondar VV, Wan YW, Tan Q, Adamski CJ, Friedrich J, Twaroski K, Chen W, **Tolar J**, Henzler C, Sharma A, Bajić A, Lin T, Duvick L, Liu Z, Sillitoe RV, Zoghbi HY, Orr HT. ATXN1-CIC complex Is the primary driver of cerebellar pathology in spinocerebellar ataxia type 1 through a gain-of-function mechanism. Neuron. 2018 Mar 21;97(6):1235-1243. https://doi.org/10.1016/j.Neuron.2018.02.013. PMID: 29526553**.**]

69. Felices M, Lenvik AJ, McElmurry R, Chu S, Hinderlie P, Bendzick L, Geller MA, **Tolar J**, Blazar BR, Miller JS. Continuous treatment with IL-15 exhausts human NK cells via a metabolic defect. JCI Insight. 2018;3(3):e96219. https://doi.org/10.1172/jci.insight.96219. PMID: 29415897. PMCID: PMC5821201.

70. Du J, Flynn R, Paz K, Ren HG, Ogata Y, Zhang Q, Gafken PR, Storer BE, Roy NH, Burkhardt JK, Mathews W, **Tolar J**, Lee SJ, Blazar BR, Paczesny S. Murine chronic graft-versus-host disease proteome profiling discovers CCL15 as a novel biomarker in patients. Blood. 2018 Apr 12;131(15):1743-1754. https://doi.org/10.1182/blood-2017-08-800623. PMID: 29348127. PMCID: PMC5897867.

71. Bruckner AL, Fairclough DL, Feinstein JA, Lara-Corrales I, Lucky AW, **Tolar J,** Pope E. Reliability and validity of iscorEB (Instrument for Scoring Clinical Outcomes of Research for Epidermolysis Bullosa). Br J Dermatol. 2018 May;178(5):1128-1134. https://doi.org/10.1111/bjd.16350. PMID: 29341069.

72. Matson JP, Dumitru R, Coryell P, Baxley RM, Chen W, Twaroski K, Webber BR, **Tolar J**, Bielinsky AK, Purvis JE, Cook JG. Rapid DNA replication origin licensing protects stem cell pluripotency. Elife. 2017 Nov 17;6. pii: e30473. https://doi.org/10.7554/eLife.30473. PMID: 29148972. PMCID: PMC5720591. Correction: Elife 2019 June 5;8. piiE49040. https://doi.org/10.7554/eLife.49040.

73. Hinderer C, Katz N, Louboutin J-P, Bell P, **Tolar J**, Orchard PJ, Lund TC, Nayal M, Weng L, Mesaros C, deSouza C, Corte AD, Giugliani R, Wilson JM. Abnormal polyamine metabolism is unique to the neuropathic forms of MPS: Potential for biomarker development and insight into pathogenesis. Hum Mol Genet. 2017 26(19):3837-3849. https://doi.org/10.1093/hmg/ddx277. PMID: 28934395. PMCID: PMC5886077. (UPenn Press Release 2017 Aug 8)

74. Ivaturi V, Dvorak CC, Chan D, Liu T, Cowan MJ, Wahlstrom J, Stricherz M, Jennissen C, Orchard PJ, **Tolar J**, Pai SY, Huang L, Aweeka F, Long-Boyle J. Pharmacokinetics and model-based dosing to optimize fludarabine therapy in pediatric hematopoietic cell transplant recipients. Biol Blood Marrow Transplant. 2017 Oct;23(10):1701-1713. https://doi.org/10.1016/j.bbmt.2017.06.021. PMID: 28684371.

75. Ward E, Twaroski K, **Tolar J**. Feeder-free derivation of naïve human pluripotent stem cells. Letter to Editor. Stem Cells Dev. 2017 Aug;26(15):1087-89. https://doi.org/10.1089/scd.2017.0067. PMID: 28537496. PMCID: PMC5563919.

76. Magli A, Incitti T, Kiley J, Swanson SA, Darabi R, Rinaldi F, Selvaraj S, Yamamoto A, **Tolar J**, Yuan C, Stewart R, Thomson JA, Perlingeiro RCR. PAX7 targets, CD54, Integrin α9β1, and SDC2, allow isolation of human ESC/iPSC-derived myogenic progenitors. Cell Rep. 2017 Jun 27;19(13):2867-2877. https://doi.org/10.1016/j.celrep.2017.06.005. PMID: 28658631. PMCID: PMC5528177.

77. Skvarova Kramarzova K, Osborn MJ, Webber BR, DeFeo AP, McElroy AN, Kim CJ, **Tolar J**. CRISPR/Cas9-mediated correction of the *FANCD1* gene in primary patient cells. Int J Mol Sci. 2017 Jun 14;18(6). pii: E1269. https://doi.org/10.3390/ijms18061269. PMID: 28613254. PMCID: PMC5486091.

78. Webber BR, O'Connor KT, McElmurry RT, Durgin EN, Eide CR, Lees CJ, Riddle MJ, Mathews WE, Frank NY, Kluth MA, Ganss C, Moriarity BS, Frank MH, Osborn MJ, **Tolar J**. Rapid generation of *Col7a1-/-* mouse model of recessive dystrophic epidermolysis bullosa and partial rescue via immunosuppressive dermal mesenchymal stem cells. Lab Invest. 2017 Oct;97(10):1218-1224. https://doi.org/10.1038/labinvest.2017.85. PMID: 28892093. PMCID: PMC5623156.

79. Dietz AC, Savage SA, Vlachos A, Mehta PA, Bresters D, **Tolar J**, Bonfim C, Dalle JH, de la Fuente J, Skinner R, Boulad F, Duncan CN, Baker KS, Pulsipher MA, Lipton JM, Wagner JE, Alter BP. Late effects screening guidelines 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 HCT. Biol Blood Marrow Transplant. 2017 Sep;23(9):1422-1428. https://doi.org/10.1016/j.bbmt.2017.05.022. PMID: 28533057. PMCID: PMC5565711.

80. Smith MJ, Reichenbach DK, Parker SL, Riddle MJ, Mitchell J, Osum KC, Mohtashami M, Stefanski HE, Fife BT, Bhandoola A, Hogquist KA, Holländer GA, Zúñiga-Pflücker JC, **Tolar J**, Blazar, BR. T cell progenitor therapy-facilitated thymopoiesis depends upon thymic input and continued thymic microenvironment interaction. JCI Insight. 2017 May 18;2(10)e92056. https://doi.org/10.1172/jci.insight.92056. PMID: 28515359. PMCID: PMC5436538.

81. Knipping F, Osborn MJ, Petri K, **Tolar J**, Glimm H, von Kalle C, Schmidt M, Gabriel R. Genome-wide specificity of highly efficient TALENs and CRISPR/Cas9 for T cell receptor modification. Mol Ther Methods Clin Dev 2017 Feb 12;4:213-244. https://doi.org/10.1016/j.omtm.2017.01.005. eCollection 2017 Mar 17. PMID: 28345006. PMCID: PMC5363317.

82. Osborn MJ, Webber BR, McElmurry RT, Rudser KD, DeFeo AP, Muradian M, Petryk A, Hallgrimsson B, Blazar BR, **Tolar J**, Braunlin EA. Angiotensin receptor blockade mediated amelioration of mucopolysaccharidosis type I cardiac and craniofacial pathology. J Inherit Metab Dis. 2017 Mar;40(2):281-289. https://doi.org/10.1007/s10545-016-9988-z. PMID: 27743312. PMCID: PMC5335863.

83. Lee JY, Hsu CK, Michael M, Nanda A, Liu L, McMillan JR, Pourreyron C, Takeichi T, **Tolar J**, Reid E, Hayday T, Blumen SC, Abu-Mouch S, Straussberg R, Basel-Vanagaite L, Barhum Y, Zouabi Y, Al-Ajmi H, Huang HY, Lin TC, Akiyama M, Lee JY, McLean WH, Simpson MA, Parsons M, McGrath JA. Large intragenic deletion in DSTYK underlies autosomal-recessive complicated spastic paraparesis, SPG23. Am J Hum Genet. 2017 Feb 2; 100(2):364-370. https://doi.org/10.1016/j.ajhg.2017.01.014. PMID: 28157540. PMCID: PMC5294675.

84. Kramer AC, Weber J, Zhang Y, **Tolar J**, Gibbens YY, Shevik M, Lund TC. TP53 modulates oxidative stress in Gata^{+} erythroid cells. Stem Cell Reports. 2017 Jan 25. 8(2):360-372. https://doi.org/10.1016/j.stemcr.2016.12.025. PMID: 28132886. PMCID: PMC5312256.

85. Mallhi K, Orchard PJ, Miller WP, Cao Q, **Tolar J**, Lund TC. Non-myeloablative conditioning for second hematopoietic cell transplantation for graft failure in patients with non-malignant disorders: A prospective study and review of the literature. Bone Marrow Transplant. 2017 Jan 16;52(5):726-732. https://doi.org/10.1038/bmt.2016.356. PMID: 28092353.

86. Astuti Y, Kramer AC, Blake AL, Blazar BR, **Tolar J**, Taisto ME, Lund TC. A functional bioluminescent zebrafish screen for enhancing hematopoietic cell homing. Stem Cell Reports. 2017 Jan 10;8(1):177-190. https://doi.org/10.1016/j.stemcr.2016.12.004. PMID: 28041876. PMCID: PMC5233450.

87. Boyle WS, Senger K, **Tolar J**, Reineke TM. Heparin enhances transfection in concert with a trehalose-based polycation with challenging cell types. Biomacromolecules. 2017 Jan 9;18(1):56-67. https://doi.org/10.1021/acs.biomac.6b01297. PMID: 27992192.

88. Webber BR, Osborn MJ, McElroy AN, Twaroski K, Lonetree C, DeFeo AP, Xia L, Edie CJ, McElmurry RT, Riddle MJ, Kim CJ, Patel DD, Blazar BR, **Tolar J**. CRISPR/Cas9-based genetic correction for recessive dystrophic epidermolysis bullosa. npj Regen Med. 2016 Dec 8;1, Article #16014; https://doi.org/10.1038/npjregenmed.2016.14. PMID: 28250968. PMCID: PMC5328670.

89. Vanden Oever M, Muldoon D, Mathews W, McElmurry R, **Tolar J**. miR-29 regulates type VII collagen in recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2016 Oct;136(10):2013-21. https://doi.org/10.1016/j.jid.2016.05.115. PMID: 27328306. PMCID: PMC5341382.

90. Hippen KL, Watkins B, Tkachev V, Lemire AM, Lehnen C, Riddle MJ, Singh K, Panoskaltsis-Mortari A, Vanhove B, **Tolar J**, Kean LS, Blazar BR. Preclinical testing of anti-human CD28 Fab' antibody in a novel nonhuman primate (NHP) small animal rodent model of xenogenic graft-versus-host disease (GVHD). Transplantation. 2016 Sep;100(12):2630-9. https://doi.org/10.1097/TP.0000000000001465. PMID: 27861291. PMCID: PMC5175408.

91. Osborn M, Lonetree CL, Webber BR, Patel D, Dunmire S, McElroy AN, DeFeo AP, MacMillan ML, Wagner J, Blazar BR, **Tolar J**. CRISPR/Cas9 targeted gene editing and cellular engineering in Fanconi anemia. Stem Cells Dev. 2016 Aug;25(20):1591-603. https://doi.org/10.1089/scd.2016.0149. PMID: 27538887. PMCID: PMC5059216.

92. Vallera DA, Felices M, McElmurry RT, McCullar V, Zhou X, Schmohl J, Zhang B, Lenvik A, Panoskaltsis-Mortari A, Verneris MR, **Tolar J**, Cooley S, Weisdorf D, Blazar BR, Miller JS. IL-15 trispecific killer engagers (TriKEs) make natural killer cells specific to CD33+ targets while also inducing in vivo expansion, and enhanced function. Clin Cancer Res. 2016 Jul 15;22(14):3440-50. https://doi.org/10.1158/1078-0432.CCR-15-2710. PMID: 26847056. PMCID: PMC4947440.

93. Yuan C, Bothun ED, Hardten DR, **Tolar J**, McLoon LK. A novel explanation of corneal clouding in a bone marrow transplant-treated patient with Hurler syndrome. Exp Eye Res. 2016 Jul;148:83-9. https://doi.org/10.1016/j.exer.2016.05.022. PMID: 27235795.

94. Lindborg BA, Brekke JH, Vegoe AL, Ulrich CB, Haider KT, Subramaniam S, Venhuizen SL, Eide CR, Orchard PJ, Chen W, Wang Q, Pelaez F, Scott CM, Kokkoli E, Keirstead SA, Dutton JR, **Tolar J***, O'Brien TD* (*co-last authors). Rapid induction of cerebral organoids from human induced pluripotent stem cells using a chemically defined hydrogel and defined cell culture medium. Stem Cells Transl Med. 2016 Jul;5(7):970-9. https://doi.org/10.5966/sctm.2015-0305. PMID: 27177577. PMCID: PMC4922855.

95. Boull CL, Hylwa SA, Sajic D, Wagner JE, **Tolar J**, Hook KP. Toxic epidermal necrolysis in recessive dystrophic epidermolysis bullosa following bone marrow transplantation. J Pediatr. 2016 Jun;173:242-4. https://doi.org/10.1016/j.jpeds.2016.02.037. PMID: 26976809.

96. Thibert KA, Raymond GV, **Tolar J**, Miller WP, Orchard PJ, Lund TC. Cerebral spinal fluid levels of cytokines are elevated in patients with metachromatic leukodystrophy. Sci Rep. 2016 Apr 15;6:24579. https://doi.org/10.1038/srep24579. PMID: 27079147. PMCID: PMC4832325.

97. Agrawal P, Ingle N, Boyle W, Ward E, **Tolar J**, Dorfman K, Reineke T. Fast, efficient and gentle transfection of human adherent cells in suspension. ACS Appl Mater Interfaces. 2016 Apr 13;8(14):8870-4. https://doi.org/10.1021/acsami.6b01702. PMID: 27035392.

98. Ghosh A, Miller W, Orchard PJ, Jones SA, Mercer J, Church HJ, Tylee K, Lund T, Bigger BW, **Tolar J**, Wynn RF. Enzyme replacement therapy prior to haematopoietic stem cell transplantation in mucopolysaccharidosis type I: 10 year combined experience of 2 centres. Mol Genet Metab. 2016 Mar;117(3):373-7. https://doi.org/10.1016/j.ymgme.2016.01.011. PMID: 26832957.

99. Kunin-Batson AS, Shapiro EG, Rudser KD, Lavery CA, Bjoraker KJ, Jones SA, Wynn RF, Vellodi A, **Tolar J**, Orchard PJ, Wraith JE. Long-term cognitive and functional outcomes in children with mucopolysaccharidosis (MPS)-IH (Hurler syndrome) treated with hematopoietic cell transplantation. JIMD Rep. 2016;29:95-102. https://doi.org/10.1007%2F8904_2015_521. PMID: 26825088. PMCID: PMC5059216.

100. Wagner JE Jr, Brunstein CG, Boitano AE, DeFor TE, McKenna D, Sumstad D, Blazar BR, **Tolar J**, Le C, Jones J, Cooke MP, Bleul C. Phase I/II trial of StemRegenin-1 expanded umbilical cord blood hematopoietic stem cells supports testing as a stand-alone graft. Cell Stem Cell. 2016 Jan 7; 18(1):144-55. https://doi.org/10.1016/j.stem.2015.10.004. PMID: 26669897. PMCID: PMC4881386.

101. Osborn MJ*, Webber BR*, Knipping F*, Lonetree CL, Tennis N, DeFeo AP, McElroy AN, Starker CG, Lee C, Gabriel R, Merkel S, Lund TC, Kelly-Spratt KS, Jensen MC, Voytas DF, von Kalle C, Schmidt M, Hippen KL, Miller JS, Scharenberg AM*, **Tolar J***, Blazar BR* (*equal contributors). Evaluation of TCR gene editing achieved by TALENs, CRISPR/Cas9 and megaTAL nucleases. Mol Ther. 2016 Mar;24(3):570-81. https://doi.org/10.1038/mt.2015.197. PMID: 26502778. PMCID: PMC4786913.
102. Kitajima K, Nakajima M, Kanokoda M, Kyba M, Dandapat A, **Tolar J**, Saito MK, Toyoda M, Umezawa A, Hara T. GSK3β inhibition activates the CDX/HOX pathway and promotes hemogenic endothelial progenitor differentiation from human pluripotent stem cells. Exp Hematol. 2016 Jan;44(1):68-74.e1-10. https://doi.org/10.1016/j.exphem.2015.09.007. PMID: 26477526.
103. Poynter JN, Bestrashniy JR, Silverstein KA, Hooten AJ, Lees C, Ross JA, **Tolar J**. Cross platform analysis of methylation, miRNA and stem cell gene expression data in germ cell tumors highlights characteristic differences by tumor histology. BMC Cancer. 2015 Oct 23;15:769. https://doi.org/10.1186/s12885-015-1796-6. PMID: 26497383. PMCID: PMC4619074.
104. Anderlini P, Wu J, Gersten I, Ewell M, **Tolar J**, Antin JH, Adams R, Arai S, Eames G, Horwitz ME, McCarty J, Nakamura R, Pulsipher MA, Rowley S, Leifer E, Carter SL, DiFronzo NL, Horowitz MM, Confer D, Deeg HJ, Eapen M. Cyclophosphamide conditioning in patients with severe aplastic anaemia given unrelated marrow transplantation: a phase 1-2 dose de-escalation study. Lancet Haematol. 2015 Sep;2(9):e367-75. https://doi.org/10.1016/S2352-3026(15)00147-7. PMID: 22546497. PMCID: PMC3677744.
105. Lund TC, Liegel J, Bejanyan N, Orchard PJ, Cao Q, **Tolar J**, Brunstein C, Wagner JE, Verneris MR, Weisdorf D. Second allogeneic hematopoietic cell transplantation for graft failure: Poor outcomes for neutropenic graft failure. Am J Hematol. 2015 Sep;90(10):892-6. https://doi.org/10.1002/ajh.24111. PMID: 26149534. PMCID: PMC4579006.
106. Watt S, Dayal J, Wright S, Pourreyron C, McMillan J, Riddle M, McLean I, Leigh I, McGrath J, Salas-Alanis J, **Tolar J**, South AP. Lysyl hydroxylase 3 localizes to epidermal basement membrane and is reduced in patients with recessive dystrophic epidermolysis bullosa. PLoS ONE. 2015 Sep 18;10(9):e0137639. https://doi.org/10.1371/journal.pone.0137639. PMID: 26380979. PMCID: PMC4575209.
107. Koehn BH, Apostolova P, Haverkamp JM, Miller JS, McCullar V, **Tolar J**, Munn DH, Murphy WJ, Brickey WJ, Serody JS, Gabrilovich DI, Bronte V, Murray PJ, Ting JP, Zeiser R, Blazar BR. GvHD-associated, inflammasome-mediated loss of function in adoptively transferred myeloid-derived suppressor cells. Blood. 2015 Sep;126(13):1621-8. https://doi.org//10.1182/blood-2015-03-634691. PMID: 26265697. PMCID: PMC4582338.
108. Modiano JF, Lindborg BA, McElmurry RT, Lewellen M, Forster CL, Zamora EA, Schaack J, Bellgrau D, O'Brien TD, **Tolar J**. Mesenchymal stromal cells inhibit murine syngeneic anti-tumor immune responses by attenuating inflammation and reorganizing the tumor microenvironment. Cancer Immunol Immunother. 2015 Nov;64(11):1449-60. https://doi.org/10.1007/s00262-015-1749-6. PMID: 26250807. PMCID: PMC4618101.
109. Aldenhoven M, Wynn RF, Orchard PJ, O'Meara A, Veys P, Fischer A, Valayannopoulos V, Neven B, Rovelli A, Prasad VK, **Tolar J**, Allewelt H, Jones SA, Parini R, Renard M, Bordon V, Wulffraat NM, de Koning TJ, Shapiro, EC, Kurtzberg J, Boelens JJ. Long-term outcome of Hurler syndrome patients after hematopoietic cell transplantation: an international multi-center study. Blood. 2015 Mar;125(13)2164-72. https://doi.org/10.1182/blood-2014-11-608075. PMID: 25624320.
110. Osborn MJ, Gabriel R, Webber BR, DeFeo AP, McElroy AN, Jarjour J, Starker CG, Wagner JE, Joung JK, Voytas DF, von Kalle C, Schmidt M, Blazar BR, **Tolar J**. Fanconi anemia gene editing by the CRISPR/Cas9 system. Hum Gene Ther. 2015 Feb;26(2):114-26. https://doi.org/10.1089/hum.2014.111. PMID: 25545896. PMCID: PMC4326027.
111. Petrof G, Lwin SM, Martinez-Queipo M, Abdul-Wahab A, Tso S, Mellerio JE, Slaper-Cortenbach I, Boelens JJ, **Tolar J**, Veys P, Ofuya M, Peacock JL, Martinez AE, McGrath JA. Potential of systemic allogeneic mesenchymal stromal cell therapy for children with recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2015 Sep;135(9):2319-21. https://doi.org/10.1038/jid.2015.158. PMID: 25905587. PMCID: PMC5696540.
112. Dickson PI, **Tolar J**. The individual (single patient) IND for inborn errors of metabolism. Mol Genet Metab. 2015 Sep-Oct;116(1-2):1-3. https://doi.org/10.1016/j.ymgme.2014.10.003. PMID: 25456747.

113. Mack MR, Wendelschafer-Crabb G, McAdams B, Hordinsky M, Kennedy W, **Tolar J**. Peripheral neuro-immune pathology in recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2015 Apr;135(4):1193-7. https://doi.org/10.1038/jid.2014.500. PMID: 25431850. PMCID: PMC4366323.

114. Zhang L, Guo J, Zhang P, Xiong Q, Wu SC, Xia L, Roy SS, **Tolar J**, O'Connell TD, Kyba M, Liao K, Zhang J. Derivation and high engraftment of patient-specific cardiomyocyte-sheet using induced pluripotent stem cells generated from adult cardiac fibroblast. Circ Heart Fail. 2015 Jan;8(1):156-66. https://doi.org/10.1161/CIRCHEARTFAILURE.114.001317. PMID: 25420485. PMCID: PMC4303534.

115. Ross JA, **Tolar J**, Spector LG, DeFor T, Lund TC, Weisdorf DJ, Langer E, Hooten AJ, Thyagarajan B, Gleason MK, Wagner JE, Robien K, Verneris MR. An exploratory analysis of mitochondrial haplotypes and allogeneic hematopoietic cell transplantation (HCT) outcomes. Biol Blood Marrow Transplant. 2015;21(1):81-8. https://doi.org/10.1016/j.bbmt.2014.09.023. PMID: 25300867. PMCID: PMC4272903.

116. Perdoni C, McGrath JA, **Tolar J**. Preconditioning of mesenchymal stem cells for improved transplantation efficacy in recessive dystrophic epidermolysis bullosa. Stem Cell Res Ther. 2014 Nov 6;5(6):121. https://doi.org/10.1186/scrt511. PMID: 25376815. PMCID: PMC4446116.

117. Raza K, Larsen T, Samaratunga N, Price AP, Meyer C, Matson A, Ehrhardt MJ, Fogas S, **Tolar J**, Hertz MI, Panoskaltsis-Mortari A. MSC therapy attenuates obliterative bronchiolitis after murine bone marrow transplant. PLoS ONE. 2014 Oct 1;9(10):e109034. https://doi.org/10.1371/journal.pone.0109034. PMID: 25272285. PMCID: PMC4182803.

118. Poynter JN, Fonstad R, **Tolar J**, Spector LG, Ross JA. Incidence of intracranial germ cell tumors by race in the United States, 1992-2010. J Neurooncol. 2014; 120(2):381-8. https://doi.org/10.1007/s11060-014-1562-7. PMID: 25086758. PMCID: PMC4206671.

119. Lund TC, Patrinostro X, Kramer AC, Stadem P, Higgins L, Markowski TW, Wroblewski MS, Lidke DS, **Tolar J**, Blazar BR. sdf1 Expression reveals a source of perivascular-derived mesenchymal stem cells in zebrafish. Stem Cells. 2014 Oct;32(10):2767-79. https://doi.org/10.1002/stem.1758. PMID: 24905975. PMCID: PMC4165765

120. Miller JS, Rooney CM, Curtsinger J, McElmurry R, McCullar V, Verneris MR, Lapteva N, McKenna D, Wagner JE, Blazar BR, **Tolar J**. Expansion and homing of adoptively transferred human natural killer cells in immunodeficient mice varies with product preparation and in vivo cytokine administration: implications for clinical therapy. Biol Blood Marrow Transplant. 2014 Aug;20(8):1252-7. https://doi.org/10.1016/j.bbmt.2014.05.004. PMID: 24816582. PMCID: PMC4099265.

121. **Tolar J**, McGrath JA, Xia L, Riddle M, Lees CJ, Eide C, Keene DR, Liu L, Osborn MJ, Lund TC, Blazar BR, Wagner JE. Patient-specific naturally gene-reverted induced pluripotent stem cells in recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2014 May;134(5):1246-54. https://doi.org/10.1038/jid.2013.523. PMID: 24317394. PMCID: PMC3989384.

122. **Tolar J**, Wagner JE. Allogeneic blood and bone marrow cells for the treatment of severe epidermolysis bullosa: repair of the extracellular matrix. Lancet. 2013 Oct 5;382(9899):1214-23. https://doi.org/10.1016/s0140-6736(13)61897-8. PMID: 24095195. PMCID: PMC3959900.

123. Webber BR, Iacovino M, Choi SH, **Tolar J***, Kyba M*, Blazar BR* (*equal contributors). DNA methylation of Runx1 regulatory regions correlates with transition from primitive to definitive hematopoietic potential in vitro and in vivo. Blood. 2013 Oct;122(17):2978-86. https://doi.org/10.1182/blood-2013-03-489369. PMID: 24030384. PMCID: PMC3811172.

124. Aoyama K, Saha A, **Tolar J**, Riddle MJ, Veenstra RG, Taylor PA, Blomhoff R, Panoskaltsis-Mortari A, Klebanoff CA, Socie G, Munn DH, Murphy WJ, Serody JS, Fulton L, Teshmia T, Chandraratna RA, Dmitrovsky E, Guo Y, Blazar BR. Inhibiting retinoic acid signaling ameliorates graft-versus-host disease by modifying T-cell differentiation and intestinal migration. Blood. 2013 Sept 19;122(12):2125-34. https://10.1182/blood-2012-11-470252. PMID: 23814022. PMCID: PMC3778553.

125. Gadalla SM, Sales-Bonfim C, Carreras J, Alter BP, Antin JH, Ayas M, Bodhi P, Davis J, Davies SM, Deconinck E, Deeg HJ, Duerst RE, Fasth A, Ghavamzadeh A, Giri N, Goldman FD, Kolb EA, Krance R, Kurtzberg J, Leung WH, Srivastava A, Or R, Richman CM, Rosenberg PS, Toledo Codina JS, Shenoy S, Socié G, **Tolar J**, Williams KM, Eapen M, Savage SA. Outcomes of allogeneic hematopoietic cell transplantation in patients with dyskeratosis congenita. Biol Blood Marrow Transplant. 2013 Aug;19(8):1238-43. https://dx/doi.org/10.1016/j.bbmt.2013.05.021. PMID: 23751955. PMCID: PMC3736557.

126. Thawrani DP, Walker K, Polgreen LE, **Tolar J***, Orchard PJ* (*equal contributors). Hip dysplasia in patients with Hurler syndrome (Mucopolysaccharidosis type 1H). J Pediatr Orthop. 2013 Sep;33(6):635-43. https://10.1097/bpo.0b013e31829abfe0. PMID: 23812141.
127. Osborn MJ, Starker CG, McElroy AN, Webber BR, Riddle MJ, Xia L, DeFeo AP, Gabriel R, Schmidt M, von Kalle C, Carlson DF, Maeder ML, Joung JK, Wagner JE, Voytas DF, Blazar BR, **Tolar J**. TALEN-based gene correction for epidermolysis bullosa. Mol Ther. 2013 Jun;21(6):1151-9. PMID: 23546300. PMCID: PMC3677309. Commentary "Enzymes fix disease genes" in Nature, vol 497, May 2, 2013. https://doi.org/10.1038/mt.2013.56. This ranks 3rd in the top 7 papers in Molecular Therapy, http://crosstalk.cell.com/blog/7-molecular-therapy-classics-to-read-for-asgct-2017.
128. Lund TC, Kobs AJ, Kramer A, Nyquist M, Kuroki MT, Osborn J, Lidke DS, Low-Nam ST, Blazar BR, **Tolar J**. Bone marrow stromal and vascular smooth muscle cells have chemosensory capacity via bitter taste receptor expression. PLoS ONE. 2013;8(3):e58945. https://doi.org/10.1371/journal.pone.0058945. PMID: 23520545. PMCID: PMC3592821.
129. Boelens JJ, Aldenhoven M, Purtill D, Ruggeri A, DeFor T, Wynn R, Wraith E, Cavazzana-Calvo M, Rovelli A, Fischer A, **Tolar J**, Prasad VK, Escolar M, Gluckman E, O'Meara A, Orchard PJ, Veys P, Eapen M, Kurtzberg J, Rocha V. Outcomes of transplantation using various hematopoietic cell sources in children with Hurler's syndrome after myeloablative conditioning. Blood. 2013 May 9;121(19):3981-7. Cited by Hematopoiesis News 4.10 March 19, 2013. https://doi.org/10.1182/blood-2012-09-455238. PMID: 23493783. PMCID: PMC3836041.
130. Aldoss O, Gruenstein DH, Bass JL, Steinberger J, Zhang Y, DeFor TE, **Tolar J**, Verneris MR, Orchard PJ. Pericardial effusion after pediatric hematopoietic cell transplant. Pediatr Transplant. 2013 May;17(3):294-9. https://doi.org/10.1111/petr.12062. PMID: 23464863.
131. Eisengart JB, Rudser KD, **Tolar J**, Orchard PJ, Kivisto T, Ziegler RS, Whitley CB, Shapiro EG. Enzyme replacement is associated with better cognitive outcomes after transplant in Hurler syndrome. J Pediatr. 2013 Feb;162(2):375-80. https://doi.org/10.1016/j.ipeds.2012.07.052. PMID: 22974573. PMCID: PMC3524404.
132. Schroeder L, Orchard P, Whitley CB, Berry JM, **Tolar J**, Miller W, Braunlin EA. Cardiac ultrasound findings in infants with severe (Hurler phenotype) untreated mucopolysaccharidosis (MPS) type I. JIMD Rep. 2013;10:87-94. https://doi.org/10.1007/8904_2012_182. PMID: 23430808. PMCID: PMC3755584.
133. Thibert KA, Raymond GV, Nascene DR, Miller WP, **Tolar J**, Orchard PJ, Lund TC. Cerebrospinal fluid matrix metalloproteinases are elevated in cerebral adrenoleukodystrophy and correlate with MRI severity and neurologic dysfunction. PLoS ONE. 2012;7(11):e50430. https://doi.org/10.1371/journal.pone.0050430. PMID: 23185624. PMCID: PMC3503955.
134. **Tolar J**, Xia L, Lees CJ, Riddle M, McElroy A, Keene DR, Lund TC, Osborn MJ, Marinkovich MP, Blazar BR, Wagner JE. Keratinocytes from induced pluripotent stem cells in junctional epidermolysis bullosa. J Invest Dermatol. 2013 Feb;133(2):592-5. https://doi.org/10.1038/jid.2012.278. PMID: 22931927. PMCID: PMC3514565.
135. McKinney AM, Nascene D, Miller WP, Eisengart J, Loes D, Benson M, **Tolar J**, Orchard PJ, Ziegler RS, Zhang L, Provenzale J. Childhood cerebral X-linked adrenoleukodystrophy: Diffusion tensor imaging measurements for prediction of clinical outcome after hematopoietic stem cell transplantation. Am J Neuroradiol. 2013 Mar;34(3):641-9. https://doi.org/10.3174/ajnr.A3232. PMID: 22899791.
136. Shapiro E, Guler OE, Rudser K, Delaney K, Bjoraker K, Whitley C, **Tolar J**, Orchard P, Provenzale J, Thomas KM. An exploratory study of brain function and structure in mucopolysaccharidosis type I: Long term observations following hematopoietic cell transplantation (HCT). Mol Genet Metab. 2012 Sep;107(1-2)L116-21. https://doi.org/10.1016/j.ymgme.2012.07.016. PMID: 22867884. PMCID: PMC3444648.
137. **Tolar J**, Deeg HJ, Arai S, Horwitz M, Antin JH, McCarty JM, Adams RH, Ewell M, Leifer ES, Gersten ID, Carter SL, Horowitz MM, Nakamura R, Pulsipher MA, Difronzo NL, Confer DL, Eapen M, Anderlini P. Fludarabine-based conditioning for marrow transplantation from unrelated donors in severe aplastic anemia: early results of a cyclophosphamide dose deescalation study show life-threatening adverse events at predefined cyclophosphamide dose levels. Biol Blood Marrow Transplant. 2012 Jul;18(7):1007-11. https://doi.org/10.1016/j.bbmt.2012.04.014. PMID: 22546497. PMCID: PMC3677744.

138. Lund TC, Stadem PS, Panoskaltsis-Mortari A, Raymond G, Miller WP, **Tolar J**, Orchard PJ. Elevated cerebral spinal fluid cytokine levels in boys with cerebral adrenoleukodystrophy correlates with MRI severity. PLoS ONE. 2012;7(2):e32218. https://doi.org/10.1371/journal.pone.0032218. PMID: 22359672. PMCID: PMC3281135.
139. Kim H, Long-Boyle J, Rydholm N, Orchard PJ, **Tolar J**, Smith AR, Jacobson P, Brundage R. Population pharmacokinetics of unbound mycophenolic acid in pediatric and young adult patients undergoing allogeneic hematopoietic cell transplantation. J Clin Pharmacol. 2012 Nov;52(11):1665-75. https://doi.org/10.1177/0091270011422814. PMID: 22110162
140. Mynarek M, **Tolar J**, Albert MH, Escolar ML, Boelens JJ, Cowan MJ, Finnegan N, Glomstein A, Jacobsohn DA, Kühl JS, Yabe H, Kurtzberg J, Malm D, Orchard PJ, Klein C, Lücke T, Sykora KW. Allogeneic hematopoietic SCT for alpha-mannosidosis: an analysis of 17 patients. Bone Marrow Transplant. 2012 Mar;47(3):352-9. https://doi.org/10.1177/0091270011422814. PMID: 21552297.
141. Dolan M, Cioc A, Cross NC, Neglia JP, **Tolar J**. Favorable outcome of allogeneic hematopoietic cell transplantation for 8p11 myloproliferative syndrome associated with BCR-FGFR1 gene fusion. Pediatr Blood Cancer. 2012 Jul 15;59(1):194-6. https://doi.org/10.1002/pbc.23404. PMID: 22106025.
142. Orchard PJ, Lund T, Miller W, Rothman SM, Raymond G, Nascene D, Basso L, Cloyd J, **Tolar J**. Chitotriosidase as a biomarker of cerebral adrenoleukodystrophy. J Neuroinflammation. 2011 Oct 20;8:144. https://doi.org/10.1186/1742-2094-8-144. PMID: 22014002. PMCID: PMC3236018.
143. Lund TC, Glass TJ, Somani A, Nair S, **Tolar J**, Nyquist M, Patrinostro X, Blazar BR. Zebrafish stromal cells have endothelial properties and support hematopoietic cells. Exp Hematol. 2012 Jan;40(1):61-70e1. https://doi.org/10.1016/j.exphem.2011.09.005. PMID: 21920471. PMCID: PMC4106246.
144. Hyland KA, Olson ER, Clark KJ, Aronovich EL, Hackett PB, Blazar BR, **Tolar J**, Scott McIvor R. Sleeping Beauty-mediated correction of Fanconi anemia type C. J Gene Med. 2011 Sep;13(9):462-9. https://doi.org/10.1002/jgm.1589. PMID: 21766398.
145. Greising SM, Call JA, Lund TC, Blazar BR, **Tolar J**, Lowe DA. Skeletal muscle contractile function and neuromuscular performance in Zmpste24 (-/-) mice, a murine model of human progeria. Age (Dordr). 2012 Aug;34(4):805-19. https://doi.org/10.1007/s11357-011-9281-x. PMID: 21713376. PMCID: PMC3682066.
146. Eapen M, Le Rademacher J, Antin JH, Champlin RE, Carreras J, Fay J, Passweg JR, **Tolar J**, Horowitz MM, Marsh JC, Deeg HJ. Effect of stem cell source on outcomes after unrelated donor transplantation in severe aplastic anemia. Blood. 2011 Sep 1;118(9):2618-21. https://doi.org/10.1182/blood-2011-05-354001. PMID: 21677312. PMCID: PMC3167362.
147. Osborn MJ, DeFeo AP, Blazar B*, **Tolar J*** (*co-last authors). Synthetic zinc finger nuclease design and rapid assembly. Hum Gene Ther. 2011 Sep;22(9):1155-65. https://doi.org/10.1089/hum.2011.072. PMID: 21663559. PMCID: PMC4076977.
148. Glass TJ, Lund TC, Patrinostro X, **Tolar J**, Bowman TV, Zon LI, Blazar BR. Stromal cell-derived factor-1 (SDF-1) and hematopoietic cell homing in an adult zebrafish model of hematopoietic cell transplant. Blood. 2011 Jul 21;118(3):766-74. https://doi.org/10.1182/blood-2011-01-328476. PMID: 21622651. PMCID: PMC3292438.
149. Miller WP, Rothman SM, Nascene D, Kivisto T, DeFor TE, Ziegler RS, Eisengart J, Leiser K, Raymond G, Lund TC, **Tolar J***, Orchard PJ* (*co-last authors). Outcomes after allogeneic hematopoietic cell transplantation for childhood cerebral adrenoleukodystrophy: the largest single-institutional cohort report. Blood. 2011 Aug 18;118(7):1971-8. https://doi.org/10.1182/blood-2011-01-329235. PMID: 21586746.
150. Zhang H, Young SP, Auray-Blais C, Orchard PJ, **Tolar J**, Millington DS. Analysis of glycosaminoglycans in cerebrospinal fluid from patients with mucopolysaccharidoses by isotope-dilution ultra-performance liquid chromatography/tandem mass spectrometry. Clin Chem. 2011 Jul;57(7):1005-12. https://doi.org/10.1373/clinchem.2010.161141. PMID: 21576268.
151. Polgreen LE, Chahla S, Miller W, Rothman S, **Tolar J**, Kivisto T, Nascene D, Orchard PJ, Petryk A. Early diagnosis of cerebral X-linked adrenoleukodystrophy in boys with Addison's disease improves survival and neurological outcomes. Eur J Pediatr. 2011 Aug;170(8):1049-54. https://doi.org/10.1007/s00431-011-1401-1. PMID: 21279382. PMCID: PMC3101278.
152. Heinecke KA, Peacock BN, Blazar BR, **Tolar J***, Seyfried TN* (*co-last authors). Lipid composition of whole brain and cerebellum in Hurler syndrome (MPS IH) mice. Neurochem Res. 2011 Sep;36(9):1669-76. https://doi.org/10.1007/s11064-011-0400-y. PMID: 21253856.

153. **Tolar J**, Xia L, Riddle M, Lees CJ, Eide C, McElmurry RT, Titeux M, Osborn MJ, Lund TC, Hovnanian A, Wagner JE, Blazar BR. Induced pluripotent stem cells from individuals with recessive dystrophic epidermolysis bullosa. J Invest Dermatol. 2011 Apr;131(4):848-56. https://doi.org/10.1038/jid.2010.346. PMID: 21124339. PMCID: PMC4151825.
154. Osborn MJ, McElmurry RT, Lees CJ, DeFeo AP, Chen ZY, Kay MA, Naldini L, Freeman G, **Tolar J***, Blazar BR* (*co-last authors). Minicircle DNA-based gene therapy coupled with immune modulation permits long-term expression of α-L-iduronidase in mice with mucopolysaccharidosis Type I. Mol Ther. 2011 Mar;19(3):450-60. https://doi.org/10.1038/mt.2010.249. PMID: 21081900. PMCID: PMC3048178.
155. Palpant NJ, Bedada FB, Peacock B, Blazar BR, Metzger JM, **Tolar J**. Cardiac disease in mucopolysaccharidosis type I attributed to catecholaminergic and hemodynamic deficiencies. Am J Physiol Heart Circ Physiol. 2011 Jan;300(1):H356-65. https://doi.org/10.1152/ajpheart.00774.2010. PMID: 21076027. PMCID: PMC3023247.
156. **Tolar J**, Park IH, Xia L, Lees CJ, Peacock B, Webber B, McElmurry RT, Eide CR, Orchard PJ, Kyba M, Osborn MJ, Lund TC, Wagner JE, Daley GQ, Blazar BR. Hematopoietic differentiation of induced pluripotent stem cells from patients with mucopolysaccharidosis type I (Hurler syndrome). Blood. 2011 Jan 20;117(3):839-47. https://doi.org/10.1182/blood-2010-05-287607. PMID: 21037085. PMCID: PMC3035077.
157. Pulsipher MA, Young NS, **Tolar J**, Risitano AM, Deeg HJ, Anderlini P, Calado R, Kojima S, Eapen M, Harris R, Scheinberg P, Savage S, Maciejewski JP, Tiu RV, Difronzo N, Horowitz MM, Antin JH. Optimization of therapy for severe aplastic anemia based on clinical, biological and treatment response parameters: conclusions of an International Working Group on Severe Aplastic Anemia convened by the Blood and Marrow Transplant Clinical Trials Network, March 2010. Biol Blood Marrow Transplant. 2011 Mar;17(3):291-9. https://doi.org/10.1016/j.bbmt.2010.10.028. PMID: 21034841. PMCID: PMC3053041.
158. Smith AR, Gulbahce E, Burke MJ, Cao Q, MacMillan ML, **Tolar J**, Orchard PJ, Blazar BR, Baker KS, Wagner JE, Verneris MR. Lower leukemia relapse in pediatric patients with pulmonary cytolytic thrombi following allogeneic transplant. Bone Marrow Transplant. 2011 Mar;46(3):368-71. https://doi.org/10.1038/bmt.2010.119. PMID: 20548337. PMCID: PMC3556271.
159. Wagner JE, Ishida-Yamamoto A, McGrath JA, Hordinsky M, Keene DR, Woodley DT, Chen M, Osborn MJ, Lund T, Dolan M, Blazar BR*, **Tolar J*** (BRB and JT contributed equally to this work). Bone marrow transplantation for recessive dystrophic epidermolysis bullosa. N Engl J Med. 2010 Aug 12;363(7):629-39. **Quoted in the Faculty 1000**. https://doi.org/10.1056/nejmoa0910501. PMID: 20818854. PMCID: PMC2967187.
160. Highfill SL, Rodriguez PC, Zhou Q, Goetz CA, Veenstra RG, Taylor PA, Panoskaltsis-Mortari A, Serody JS, Munn DH, **Tolar J**, Ochoa AC, Blazar BR. Bone marrow myeloid-derived suppressor cells (MSCD) inhibit graft-versus-host disease (GVHD) via an arginase 1-dependent mechanism that is upregulated by IL-13. Blood. 2010 Dec 16;116(25):5738-47. https://doi.org/10.1182/blood-2010-06-287839. PMID: 20807889. PMCID: PMC3031417.
161. Lund TC, Kobs A, Blazar BR, **Tolar J**. Mesenchymal stromal cells from donors varying widely in age are of equal cellular fitness after in vitro expansion under hypoxic conditions. Cytotherapy. 2010 Dec;12(8):971-81. https://doi.org/10.3109/14653249.2010.509394 PMID: 20807020. PMCID: PMC3657201.
162. Braunlin E, **Tolar J**, Mackey-Bojack S, Masinde T, Krivit W, Schoen FJ. Clear cells in the atrioventricular valves of infants with severe human mucopolysaccharidosis (Hurler syndrome) are activated valvular interstitial cells. Cardiovasc Pathol. 2011 Sep-Oct;20(5):315-21. https://doi.org/10.1016/j.carpath.2010.06.004. PMID: 20619689.
163. Bothun ED, Decanini A, Summers CG, Orchard PJ, **Tolar J**. Outcome of penetrating keratoplasty for mucopolysaccharidoses. Arch Ophthalmol. 2011 Feb;47(3):352-9. https://doi.org/10.1001/archophthalmol.2010.341. PMID: 21552297.
164. Zhou Q, Munger ME, Highfill, SL, **Tolar J**, Weigel BJ, Riddle M, Sharpe AH, Vallera DA, Azuma M, Levine BL, June CH, Murphy WJ, Munn DH, Blazar BR. Program death-1 (PD-1) signaling and regulatory T cells (Tregs) collaborate to resist the function of adoptively transferred cytotoxic T lymphocytes (CTLs) in advanced acute myeloid leukemia (AML). Blood. 2010 Oct 7;116(14):2484-93. https://doi.org/10.1182/blood-2010-03-275446. PMID: 20570856. PMCID: PMC2953885.

165. Long-Boyle J, Huang J, Rydholm N, Smith A, Orchard P, **Tolar J**, Jacobson P. Pharmacokinetics of clofarabine in patients with high-risk inherited metabolic disorders undergoing brain-sparing hematopoietic cell transplantation. J Clin Pharmacol. 2011 May;51(5):679-86. https://doi.org/10.1177/0091270010372519. PMID: 20525919.
166. Dietz AC, Orchard P, Baker KS, Giller R, Savage S, Alter B, **Tolar J**. Disease-specific hematopoietic cell transplantation: nonmyeloablative conditioning regimen for dyskeratosis congenita. Bone Marrow Transplant. 2011 Jan;46(1):98-104. https://doi.org/10.1038/bmt.2010.65. PMID: 20383216. PMCID: PMC5565711.
167. Arbuckle JH, Medveczky MM, Luka J, Hadley SH, Luegmayr A, Ablashi D, Lund TC, **Tolar J**, De Meirleir K, Montoya JG, Komaroff AL, Ambros PF, Medveczky PG. The latent human herpesvirus-6A genome specifically integrates in telomeres of human chromosomes in vivo and in vitro. Proc Natl Acad Sci USA. 2010 Mar 23;107(12):5563-8. https://doi.org/10.1073/pnas.0913586107. PMID: 20212114. PMCID: PMC2851814.
168. Beck JC, Burke MJ, **Tolar J**. Response of refractory immune thrombocytopenia after bone marrow transplantation to romiplostim. Ped Blood Cancer. 2010 Mar;54(3):490-1. https://doi.org/10.1002/pbc.22332. PMID: 19908296.
169. Orchard PJ, **Tolar J**, Transplant outcomes in leukodystrophies. Semin Hematol. 2010 Jan;47(1):70-8. https://doi.org/10.1053/j.seminhematol.2009.10.006. PMID: 20109614.
170. Orchard PJ, Milla C, Braunlin E, DeFor T, Bjoraker K, Blazar BR, Peters C, Wagner J, **Tolar J**. Pre-transplant risk factors affecting outcome in Hurler syndrome. Bone Marrow Transplant. 2010 Jul;45(7):1239-46. https://doi.org/10.1038/bmt.2009.319. PMID: 19898501.
171. Zhou Q, Bucher C, Munger ME, Highfill SL, **Tolar J**, Munn DH, Levine BL, Riddle M, June CH, Vallera DA, Weigel BJ, Blazar BR. Depletion of endogenous tumor-associated regulatory T cells improves the efficacy of adoptive cytotoxic T-cell immunotherapy in murine acute myeloid leukemia. Blood. 2009 Oct 29;114(18):3793-802. https://doi.org/10.1182/blood-2009-03-208181. PMID: 19724059. PMCID: PMC2773484.
172. Lund TC, Glass TJ, **Tolar J**, Blazar BR. Expression of telomerase and telomere length are unaffected by either age or limb regeneration in danio rerio. PLoS ONE. 2009 Nov 6;4(11):e7688. https://doi.org/10.1371/journal.pone.0007688. PMID: 19893630. PMCID: PMC2766636.
173. Martinez C, Polgreen LE, DeFor TE, Kivisto T, Petryk A, **Tolar J***, Orchard PJ* (*co-last authors). Characterization and management of hypercalcemia following transplantation for osteopetrosis. Bone Marrow Transplant. 2010 May;45(5):939-44. https://doi.org/10.1038/bmt.2009.277. PMID: 19802031.
174. Blair HC, Yaroslavskiy BB, Robinson LJ, Mapara MY, Pangrazio A, Guo L, Chen K, Vezzoni P, **Tolar J**, Orchard PJ. Osteopetrosis with micro-lacunar resorption because of defective integrin organization. Lab Invest. 2009 Sep;89(9):1007-17. https://doi.org/10.1038/labinvest.2009.58. PMID: 19546854. PMCID: PMC2856930.
175. Highfill SL, Kelly RM, O'Shaughnessy MJ, Zhou Q, Xia L, Panoskaltsis-Mortari A, Taylor PA, **Tolar J***, Blazar BR* (*co-last authors). Multipotent adult progenitor cells (MAPC) can suppress graft-versus-host disease via prostaglandin E2 synthesis and only if localized to sites of allopriming. Blood. 2009 Jul 16;114(3):693-701. https://doi.org/10.1182/blood-2009-03-213850. PMID: 19458354. PMCID: PMC2713464.
176. **Tolar J***, Braunlin E*, Riddle M, Peacock B, McElmurry RT, Orchard PJ, Blazar BR. (* co-first authors) Gender-related dimorphism in aortic insufficiency in murine mucopolysaccharidosis Type I. J Heart Valve Dis. 2009 Sep;18(5):524-9. http://www. http://europepmc.org/articles/PMC3541017. PMID: 20099693. PMCID: PMC3541017.
177. Luscri N, Mauer M, Sarafoglou K, Moran A, **Tolar J**. Lactic acidosis and hypoglycemia with ALL relapse following hematopoietic cell transplant: a case report and brief review of literature. Pediatr Blood Cancer. 2009 Aug;53(2):223-5. https://doi.org/10.1002/pbc.22010. PMID: 19405138.
178. Polgreen LE, Plog M, Schwender JD, **Tolar J**, Thomas W, Orchard PJ, Miller BS, Petryk A. Short-term growth hormone treatment in children with Hurler syndrome after hematopoietic cell transplantation. Bone Marrow Transplant. 2009 Sep;44(5):279-85. https://doi.org/10.1038/bmt.2009.31. PMID: 19252529. PMCID: PMC3071029.

179. **Tolar J**, Ishida-Yamamoto A, Riddle M, McElmurry RT, Osborn M, Xia L, Lund T, Slattery C, Uitto J, Christiano AM, Wagner JE, Blazar BR. Amelioration of epidermolysis bullosa by transfer of wild-type bone marrow cells. Blood. 2009 Jan 29;113(5):1167-74. [**Press release**: American Society of Hematology, Dec 3, 2008; **Commentary**: Inside Blood 2009 Jan 29;113(5):982-3.] https://doi.org/10.1182/blood-2008-06-161299. PMID: 18955559. PMCID: PMC2635082.

180. **Tolar J**, Petryk A, Khan K, Bjoraker KJ, Jessurun J, Dolan M, Kivisto T, Charnas L, Shapiro EG, Orchard PJ. Long-term metabolic, endocrine, and neuropsychological outcome of hematopoietic cell transplantation for Wolman disease. Bone Marrow Transplant. 2009 Jan;43(1):21-7. https://doi.org/10.1038/bmt.2008.273. PMID: 18776925.

181. Osborn MJ, McElmurry RT, Peacock B, **Tolar J***, Blazar BR* (*co-last authors). Targeting of the CNS in MPS-IH using a nonviral transferrin-α-L-iduronidase fusion gene product. Mol Ther. 2008 Aug;16(8):1459-66. https://doi.org/10.1038/mt.2008.119. PMID: 18523448. PMCID: PMC2574880.

182. Harker-Murray PD, Thomas AJ, Wagner JE, Weisdorf D, Luo X, DeFor TE, Verneris MR, Dusenbery KE, MacMillan ML, **Tolar J**, Baker KS, Orchard PJ. Allogeneic hematopoietic cell transplantation in children with relapsed acute lymphoblastic leukemia isolated to the central nervous system. Biol Blood Marrow Transplant. 2008 Jun;14(6):685-92. https://doi.org/10.1016/j.bbmt.2008.03.011. PMID: 18489994.

183. Lund TC, **Tolar J**, Orchard PJ. Granulocyte colony-stimulating factor mobilized CFU-F can be found in the peripheral blood but have limited expansion potential. Haematologica. 2008 Jun;93(6):908-12. https://doi.org/1.3324/haematol.12384. PMID: 18403392.

184. **Tolar J**, Orchard PJ, Key NS, Blazar BR. Circulating anticoagulant glycosaminoglycans in mucopolysaccharidosis type I. J Throm Haemost. 2008 May;6(5):893-5. https://doi.org/10.1111/j.1538-7836.2008.02936. PMID: 18315551.

185. Jacobson P, Huang J, Rydholm N, Tran M, DeFor T, **Tolar J**, Orchard PJ. Higher mycophenolate dose requirements in children undergoing hematopoietic cell transplant (HCT). J Clin Pharmacol. 2008 Apr;48(4):485-94. https://doi.org/10.1177/0091270007313326. PMID: 18296555.

186. Polgreen LE, **Tolar J**, Plog M, Himes JH, Orchard PJ, Whitley CB, Miller BS, Petryk A. Growth and endocrine function in patients with Hurler syndrome after hematopoietic stem cell transplantation. Bone Marrow Transplant. 2008 Jun;41(12):1005-11. https://doi.org/10.1038/bmt.2008.20. PMID: 18278070.

187. Huang X, Guo H, Kang J, Choi S, Zhou TC, Tammana S, Lees CJ, Li ZZ, Milone M, Levine BL, **Tolar J**, June CH, McIvor RS, Wagner JE, Blazar BR, Zhou X. *Sleeping Beauty* transposon-mediated engineering of human primary T cells for therapy of CD19+ lymphoid malignancies. Mol Ther. 2008 Mar;16(3):580-9. https://doi.org/10.1038/sj.mt.6300404. PMID: 18227839.

188. **Tolar J**, Grewal SS, Bjoraker, KJ, Whitley CB, Shapiro EG, Charnas L, Orchard PJ. Combination of enzyme replacement and hematopoietic stem cell transplantation as therapy for Hurler syndrome. Bone Marrow Transplant. 2008 Mar;41(6):531-5. https://doi.org/10.1038/sj.bmt.1705934. PMID: 18037941.

189. Taylor PA, Ehrhardt MJ, Lees CJ, **Tolar J**, Weigel BJ, Panoskaltsis-Mortari A, Serody JS, Brinkmann V, Blazar BR. Insights into the mechanism of FTY720 and compatibility with regulatory T cells for the inhibition of graft-versus-host disease (GVHD). Blood. 2007 Nov 1;110(9):3480-8. https://doi.org/10.1182/blood-2007-05-087940. PMID: 17606761. PMCID: PMC2200903.

190. Lee AB, Harker-Murray P, Ferrieri P, Schleiss MR, **Tolar J**. Bacterial meningitis in patients with malignancy or undergoing hematopoietic stem cell transplantation. Pediatr Blood Cancer. 2008 Mar;50(3):673-6. https://doi.org/10.1002/pbc.21286. PMID: 17588235.

191. Zayed H, Xia L, Yerich A, Yant SR, Kay MA, Puttaraju M, McGarrity GJ, Wiest DL, McIvor RS, **Tolar J***, Blazar BR* (*co-last authors). Correction of DNA protein kinase deficiency by spliceosome-mediated RNA -splicing and transposon delivery. Mol Ther. 2007 Jul;15(7):1273-9. https://doi.org/10.1038/sj.mt.6300178. PMID: 17457319.

192. Yun G, **Tolar J**, Yerich AK, Marsh SGE, Robinson J, Noreen H, Blazar BR, Miller JS. A novel method for KIR-ligand typing by pyrosequencing to predict NK cell alloreactivity. Clin Immunol. 2007 Jun;123(3):272-80. https://doi.org/10.1016/j.clim.2007.01.011. PMID: 17446137. PMCID: PMC199128.

193. **Tolar J***, Wang X*, Braunlin E, McElmurry RT, Nakamura Y, Bell S, Xia L, Zhang Jo, Hu Q, Panoskaltsis-Mortari A, Zhang J, Blazar BR (*co-first authors). The host immune response is essential for the beneficial effect of adult stem cells after myocardial ischemia. Exp Hematol. 2007 Apr;35(4):682-90. https://doi.org/10.1016/j.exphem.2006.12.005. Erratum in: Exp Hematol. 2007 Jul;35(7):1153-61. PMID: 17379078.
194. **Tolar J**, Orchard PJ, Bjoraker KJ, Ziegler RS, Shapiro EG, Charnas L. N-acetyl-L-cysteine improves outcome of advanced cerebral adrenoleukodystrophy. Bone Marrow Transplant. 2007 Feb;39(4):211-5. https://doi.org/10.1038/sj.bmt.1705571. PMID: 17290278.
195. Serafini M, Dylla SJ, Oki M, Heremans Y, **Tolar J**, Jiang Y, Buckley SM, Pelacho B, Burns TC, Frommer S, Rossi DJ, Bryder D, Panoskaltsis-Mortari A, O'Shaughnessy MJ, Nelson-Holte M, Fine GC, Weissman IL, Blazar BR, Verfaillie CM. Hematopoietic reconstitution by multipotent adult progenitor cells: precursors to long-term hematopoietic stem cells. J Exp Med. 2007 Jan 22;204(1):129-39. Erratum in: J Exp Med. 2007 Jul 9;204(7):1729. https://doi.org/10.1084/jem.20061115. PMID: 17227908. PMCID: PMC2118428.
196. **Tolar J**, Bonfim C, Grewal S, Orchard P. Engraftment and survival following hematopoietic stem cell transplantation for osteopetrosis using a reduced intensity conditioning regimen. Bone Marrow Transplant. 2006 Dec;38(12):783-7. https://doi.org/10.1038/sj.bmt.1705533. PMID: 17086207.
197. **Tolar J**, Nauta AJ, Osborn MJ, Panoskaltsis-Mortari A, McElmurry RT, Bell S, Xia L, Zhou N, Riddle M, Schroeder TM, Westendorf JJ, McIvor RS, Hogendoorn PCW, Szuhai K, Oseth L, Hirsch B, Yant SR, Kay MA, Peister A, Prockop DJ, Fibbe WE, Blazar BR. Sarcoma derived from cultured mesenchymal stem cells. Stem Cells. 2007 Feb;25(2):371-9. **Quoted in the Faculty 1000**. https://doi.org/10.1634/stemcells.2005-0620. PMID: 17038675.
198. Brunstein CG, Weisdorf DJ, DeFor T, Barker JN, **Tolar J**, van Burik JA, Wagner JE. Marked increased risk of Epstein-Barr virus-related complications with the addition of antithymocyte globulin to a nonmyeloablative conditioning prior to unrelated umbilical cord blood transplantation. Blood. 2006 Oct 15;108(8):2874-80. https://doi.org/10.1182/blood-2006-03-011791. PMID: 16804113. PMCID: PMC1895580.
199. Deeg HJ, O'Donnell M, **Tolar J**, Agarwal R, Harris RE, Feig SA, Territo MC, Collins RH, McSweeney PA, Copelan EA, Khan SP, Woolfrey A, Storer B. Optimization of conditioning for marrow transplantation from unrelated donors for patients with aplastic anemia after failure of immunosuppressive therapy. Blood. 2006 Sep 1;108(5):1485-91. https://doi.org/10.1182/blood-2006-03-005041. PMID: 16684959. PMCID: PMC1895515.
200. Subramanian IV, Bui Nguyen TM, Truskinovsky AM, **Tolar J**, Blazar BR, Ramakrishnan S. Adeno-associated virus-mediated delivery of a mutant endostatin in combination with carboplatin treatment inhibits orthotopic growth of ovarian cancer and improves long-term survival. Cancer Res. 2006 Apr 15;66(8):4319-28. https://doi.org/10.1158/0008-5472.CAN-05-3297. PMID: 16618757.
201. **Tolar J**, O'Shaughnessy MJ, Panoskaltsis-Mortari A, McElmurry RT, Bell S, Riddle M, McIvor RS, Yant SR, Kay MA, Krause D, Verfaillie CM, Blazar BR. Host factors that impact the biodistribution and persistence of multipotent adult progenitor cells. Blood. 2006 May 15;107(10):4182-8. https://doi.org/10.1182/blood-2005-08-3289. PMID: 16410448. PMCID: PMC1895284.
202. Braunlin E, Mackey-Bojack S, Panoskaltsis-Mortari A, Berry JM, McElmurry RT, Riddle M, Sun LY, Clarke LA, **Tolar J***, Blazar BR* (*co-last authors). Cardiac functional and histopathologic findings in humans and mice with mucopolysaccharidosis type I: implications for assessment of therapeutic interventions in Hurler syndrome. Pediatr Res. 2006 Jan;59(1):27-32. https://doi.org/10.1203/01.pdr.0000190579.24054.39. PMID: 16326988.
203. Huang X, Wilber AC, Bao L, Tuong D, **Tolar J**, Orchard PJ, Levine BL, June CH, McIvor RS, Blazar BR, Zhou X. Stable gene transfer and expression in human primary T cells by the Sleeping Beauty transposon system. Blood. 2006 Jan 15;107(2):483-91. https://doi.org/10.1182/blood-2005-05-2133. PMID: 16189271. PMCID: PMC1895607.
204. Osborn MJ, Panoskaltsis-Mortari A, McElmurry RT, Bell SK, Vignali DAA, Ryan MD, Wilber AC, McIvor RS, **Tolar J**, Blazar BR. A picornaviral 2A-like sequence-based tricistronic vector allowing for high-level therapeutic gene expression coupled to a dual-reporter system. Mol Ther. 2005 Sep;12(3):569-74. https://doi.org/10.1016/j.ymthe.2005.04.013. PMID: 15964244.

205. **Tolar J**, Osborn M, Bell S, McElmurry R, Xia L, Riddle M, Panoskaltsis-Mortari A, Jiang Y, McIvor RS, Contag CH, Yant SR, Kay MA, Verfaillie CM, Blazar Br. Real-time imaging of stem cells following transgenesis by transposition. Mol Ther. 2005 Jul;12(1):42-8. https://doi.org/10.1016/j.ymthe.2005.02.023. PMID: 15963919.
206. **Tolar J**, Bostrom BC, La MK, Sather HN. Intravenous 6-mercaptopurine decreases salvage after relapse in childhood acute lymphoblastic leukemia: a report from the Children's Cancer Group study CCG 1922. Pediatr Blood Cancer. 2005 Jul;45(1):5-9. https://doi.org/10.1002/pbc.20239. PMID: 15481062.
207. Wagner JE, **Tolar J**, Levran O, Scholl T, Deffenbaugh A, Satagopan J, Ben-Porat L, Mah K, Batish SD, Kutler DI, MacMillan ML, Hanenberg H, Auerbach AD. Germline mutations in BRCA2: shared genetic susceptibility to breast cancer, early onset leukemia, and Fanconi anemia. Blood. 2004 Apr 15;103(8):3226-9. https://doi.org/10.1182/blood-2003-09-3138. PMID: 15070707.
208. **Tolar J**, Tope WD, Neglia JP. Leukotriene-receptor inhibition for the treatment of systemic mastocytosis. Letter. N Engl J Med. 2004 Feb 12;350(7):735-6. https://doi.org/10.1056/NEJM200402123500723. PMID: 14960756.
209. **Tolar J**, Coad JE, Ramsay NKC, Peters C, Davies SM. Lymphoproliferative disorder presenting as pulmonary nodules after bone marrow transplantation. Bone Marrow Transplant. 2001 Oct;28(8):808-10. http://www.nature.com/bmt/journal/v28/n8/full/1703249a.html. PMID: 11781638.
210. **Tolar J**, Coad JE, Neglia JP. Transplacental transfer of small-cell carcinoma of the lung. N Engl J Med. 2002 May 9;346(19):1501-2. https://doi.org/10.1056/NEJM200205093461917. PMID: 12000827.
211. **Tolar J**, Kravitz G, Walker K, Moertel CL. Acute polyosteal osteomyelitis in a patient with congenital ichthyosis and acute lymphoblastic leukemia. Pediatr Infect Dis J. Brief Report. 2001 Aug;20(8):813-4. https://doi.org/ 10.1097/00006454-200108000-00022. PMID: 11734751.
212. Ghai J, Ostrow RS, **Tolar J**, McGlennen RC, Lemke TD, Tobolt D, Liu Z, Faras AJ. The E5 gene product of rhesus papillomavirus is an activator of endogenous Ras and phosphatidylinositol-3'-kinase in NIH 3T3 cells. Proc Natl Acad Sci USA. 1996 Nov 12;93(23):12879-84. http://www.pnas.org/content/93/23/12879.full. PMID: 8917513. PMCID: PMC24014.

Peer-Reviewed Publications – Medical School Administration

1. Berge JM, Macheledt K, Watson S, Dorr H, Pusalavidyasagar S, Kunin-Batson A, Pratt R, Zimmer SL, **Tolar J**, Termuhlen A. Using a Community-Based Participatory Approach to Address Gender Equity in Academic Medicine: The Center for Women in Medicine and Science at the University of Minnesota. Acad Med. 2022 Mar 1;97(3):370-377. https://doi.org/10.1097/ACM.0000000000004375. PMID: 34469354.

Peer-Reviewed Publications – Data Mining

1. Železný F, Jalovec K, **Tolar J**. Learning meets sequencing: a generality framework for read-sets. Accepted for the International Conference on Inductive Logic Programming (2014 ILP). http://ida.felk.cvut.cz/zelezny/pubs/ilp.14.pdf.
2. Szabóová A, Kuželka O, Železný F, **Tolar J**. Prediction of DNA-binding proteins from relational features. Proteome Sci 2012;10(1):66. https://doi.org/10.1186/1477-5956-10-66. PMID: 23146001. PMCID: PMC3579737.
3. Szabóová A, Kuželka O, Železný F, **Tolar J**. Prediction of DNA-binding propensity of proteins by the ball-histogram method using automatic template search. BMC Bioinformatics 2012 Jun 25;13(Suppl 10):S3. https://doi.org/10.1186/1471-2105-13-S10-S3. PMID: 22759427. PMCID: PMC3382442.
4. Holec M, Kléma J, Železný F, **Tolar** J. Comparative evaluation of set-level techniques in predictive classification of gene expression samples. BMC Bioinformatics 2012 Jun 25;13(Suppl 10):S15. https://doi.org/10.1186/1471-2105-13-S10-S15. PMID: 22759420. PMCID: PMC3382436.
5. Szabóová A, Kuželka O, Morales E, Železný F, **Tolar J**. Prediction of DNA-binding propensity of proteins by the ball-histogram method. Lect Notes Comput Sc. 2011;6674 LNBI;358-67. https://doi.org/10.1007/978-3-642-21260-4_34.

6. Kléma J, Holec M, Železný F, **Tolar J**. Comparative evaluation of set-level techniques in microarray classification. Lect Notes Comput Sc. 2011;6674 LNBI:358-67. https://doi.org/978-3-642-21260-4.
7. Holec M, Železný F, Kléma J, **Tolar J**. A comparative evaluation of gene set analysis techniques in predictive classification of expression samples. International Conference on Bioinformatics, Computational Biology, Genomics and Chemoinformatics 2010 (BCBGC 2010). 2010:7-11. https://pdfs.semanticscholar.org/d0cc/b50d27ddd149c3551e149c5a265477845e02.pdf.
8. Holec M, Železný F, Kléma J, **Tolar J**. Integrating multiple-platform expression data through gene set features. Lect Notes Comput Sc. 2009;5542 LNBI:5-17. https://doi.org/10.1007/978-3-642-01551-9_2.
9. Holec M, Kléma J, Železný F, Bĕnadský J, **Tolar J**. Cross-genome knowledge-based expression data fusion. International Conference on Bioinformatics, Computational Biology, Genomics and Chemoinformatics 2009 (BCBGC-09). 2009:43-50. http://ida.felk.cvut.cz/klema/publications/BCBGC/bcbgc09.pdf.
10. Trajkovski I, Lavrač N, **Tolar J**. SEGS: Search for enriched gene sets in microarray data. J Biomed Inform. 2008 Aug;41(4):588-601. https://doi.org/10.1016/j.jbi.2007.12.001. PMID: 18234563.
11. Trajkovski I, L`avrač N, **Tolar J**. Learning relational descriptions of differentially expressed gene groups. IEEE Trans Sys Man Cyb C. 2008;38(1):16-25. https://doi.org/10.1109/TSMCC.2007.906059.
12. Trajkovski I, Železný F, **Tolar J**, Lavrač N. Relational subgroup discovery for descriptive analysis of microarray data. Lect Notes Comput Sc. 2006;4216 LNBI:86-96. https://doi.org/ 10.1007/11875741_9.
13. Trajkovski I, Železný F, **Tolar J**, Lavrač N. Relational descriptive analysis of gene expression data. Proceedings of STAIRS-2006 (3rd European Starting AI Researcher Symposium) at the 17th European Conference on Artificial Intelligence. Riva del Garda, Italy, 2006. http://ida.felk.cvut.cz/zelezny/pubs/stairs06.pdf.
14. Železný F, **Tolar J**, Lavrač N, Štěpánková O. Summarizing gene-expression-based classifiers by meta-mining comprehensible relational patterns. Proceedings of the Fourth IASTED International Conference on Biomedical Engineering. 2006:19-24. http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=CE4985CF9B74C1B650863E20763396CC?doi=10.1.1.67.1156&rep=rep1&type=pdf.
15. Železný F, **Tolar J**, Lavrač N, Štěpánková O. Relational subgroup discovery for gene expression data mining. Proceedings of EMBEC'05: the 3rd European Medical & Biological Engineering Conference/IFMBE European Conference on Biomedical Engineering. Prague, Czech Republic, 2005. http://ida.felk.cvut.cz/zelezny/pubs/embec05.pdf.
16. Gamberger D, Lavrač N, Železný F, **Tolar J**. Induction of comprehensible models for gene expression datasets by subgroup discovery methodology. J Biomed Inform. 2004 Aug;37(4):269-84. https://doi.org/10.1016/j.jbi.2004.07.007. PMID: 15465480.

Reviews, Commentaries and Letters to the Editor

213. Popp C, Miller W, Eide C, Tolar J, McGrath JA, Ebens CL. Beyond the Surface: A narrative review examining the systemic impacts of RDEB. J Invest Dermatol. Review. April 12, 2024. https://doi.org/10.1016/j.jid.2024.03.008. PMID: 38613531. Epub ahead of print.
214. Malinin NL, Lee G, Lazzarotto CR, Li Y, Zheng Z, Nguyen NT, Liebers M, Topkar VV, Iafrate AJ, Le LP, Aryee MJ, Joung JK, Tsai SQ. Defining genome-wide CRISPR-Cas genome-editing nuclease activity with GUIDE-seq. Nat Protoc. Review. 2021 Dec;16(12):5592-5615. https://doi.org/10.1038/s41596-021-00626-x. PMID: 34773119. PMCID: PMC9331158. Partially funded by NIH/NIAMS R01-AR063070.
215. Riedl J, Popp C, Eide C, Ebens C, **Tolar J**. Mesenchymal stromal cells in wound healing applications: role of the secretome, targeted delivery and impact on recessive dystrophic epidermolysis bullosa treatment. Cytotherapy. Review. 2021 Aug 7;23(1):961-973. https://doi.org/10.1016/j.jcyt.2021.06.004. PMID: 34376336. PMCID: PMC8569889.
216. Ebens CL, Riedl JA, **Tolar J**. Tissue-specific differences in mesenchymal stromal cells influence homing and function. J Oncol Res Treat. Commentary. 2021 S1:001. https://doi.org/10.4172/aot.s1.1000001.

217. Keith A, Twaroski K, Ebens CL, **Tolar J**. Leading Edge: Emerging drug, cell, and gene therapies for junctional epidermolysis bullosa. Exper Opin Biol Ther. Review. 2020 Aug;20(8):911-923. https://doi.org/10.1080/14712598.2020.1740678. PMID: 32178539. PMCID: PMC7392816.

218. Onoufriadis A, Hsu C-K, Eide CR, Nanda A, Orchard GE, Tomita K, Sheriff A, Scott W, Tierney C, Lee JYW, Gomaa NS, Desomchoke R, Lwin SM, Tu W-T, Chen L-Y, Huang H-Y, Chao S-C, Lee JY-Y, Bare Y, Hayday T, Guy AL, Liu L, Lees C, Hirdler T, Lovell P, Xia L, Dayrit JF, Calonje E, Simpson MA, **Tolar J**, Parsons M, McGrath J. Semi-dominant GPNMB mutations in amyloidosis cutis dyschromica. J Invest Dermatol. Letter to Editor. 2019 Dec;139(12):2550-2554.e9. https://doi.org/10.1016/j.jid.2019.05.021. PMID: 31226264.

219. Williams VN, Mariscalco M, Veselicky LT, Akins R, Badr K, Blackburn M, Carter R, Davies HD, Hueston B, Klein R, Levi A, Jackson B, Resch H, Roldan E, **Tolar J**, Wolpaw T, members of the Association of Academic Health Centers (AAHC) Chief Academic Officers (CAO) Working Group. The academic health center (AHC) chief academic officer (CAO) role in fostering interprofessional learning experiences. J Interprof Educ Pract. Review. 2019 Sept;16(100270). https://doi.org/10.1016/j.xjep.2019.100270.

220. Vanden Oever M, Twaroski K, Osborn MJ, Wagner JE, **Tolar J**. Inside out: regenerative medicine for recessive dystrophic epidermolysis bullosa. Pediatr Res. Review. 2018 Jan;83(1-2):318-324. https://doi.org/10.1038/pr.2017.244. Review. PMID: 29593249. PMCID: PMC9309030.

221. **Tolar J.** Regenerative solutions for inherited diseases. Clin Pharmacol Ther. Development. 2018 May;103(5):763-766. https://doi.org/10.1002/cpt.990. PMID: 29380353. PMCID: PMC9309030.

222. Yoon DH, Osborn MJ, **Tolar J**, Kim CJ. Incorporation of immune checkpoint blockade into chimeric antigen receptor T cells (CAR-Ts): Combination or built-in CAR-T. Int J Mol Sci. Review. 2018 Jan 24;19(2). pii: E340. https://doi.org/10.3390/ijms19020340. PMID: 29364163.

223. Dietz AC, Mehta PA, Vlachos A, Savage SA, Bresters D, **Tolar J**, Boulad F, Dalle JH, Bonfim C, de la Fuente J, Duncan CN, Baker KS, Pulsipher MA, Lipton JM, Wagner JE, Alter BP. Current knowledge and priorities for future research in late effects after hematopoietic cell transplantation (HCT) for inherited bone marrow failure syndrome (IBMFS): Consensus statement the Second Pediatric Blood and Marrow Transplant Consortium International Conference on Late Effects after Pediatric HCT. Biol Blood Marrow Transplant. Review. 2017 May;23(5):726-735. https://doi.org/10.1016/j.bbmt.2017.01.075. PMID: 28115275. PMCID: PMC5423755.

224. Navarro S, Giorgetti A, Raya A, **Tolar J**. Induced pluripotency and gene editing in Fanconi anemia. Curr Gene Ther. Review. 2017 Jan 18;16(5), pp. 321-328. https://doi.org/10.2174/1566523217666170118112050. PMID: 28103772.

225. Osborn MJ, Belanto JJ, **Tolar J**, Voytas DF. Gene editing and its application for hematological diseases. Int J Hematol. Review. 2016 Jul;104(1):18-28. https://doi.org/10.1007%2Fs12185-016-2017-z. PMID: 27233509.

226. Tolarová M, McGrath JA, **Tolar J**. Venturing into the new science of nucleases. J Invest Dermatol. Commentary. 2016 Apr;136(4):742-5. https://doi.org/10.1016/j.jid.2016.01.021. PMID: 27012560. PMCID: PMC5320895.

227. Tolarova M, **Tolar J**. From mesoderm to mesodermatology: Bone marrow mesenchymal cells heal skin wounds. Mol Ther. Commentary. 2015 Aug;23(8):1283-4. https://doi.org/ 10.1038/mt.2015.84. PMID: 26227251. PMCID: PMC4817871

228. Perdoni C, Osborn MJ, **Tolar J**. Gene editing toward the use of autologous therapies in recessive dystrophic epidermolysis bullosa. Transl Res. Review. 2016 Feb;168:50-8. https://doi.org/10.1016/j.trsl.2015.05.008. PMID: 26073463. PMCID: PMC4662628.

229. **Tolar J**. Sickle cell and silent spleen. Blood. Commentary. 2015 April 23;125(17):2589-90. https://doi.org/10.1182/blood-2015-03-633933. PMID: 25907900.

230. Nevala-Plagemann C, Lee C, **Tolar J**. Placenta-based therapies for the treatment of epidermolysis bullosa. Cytotherapy. Review. 2015 Jun;17(6):786-95. https://doi.org/10.1016/j.jcyt.2015.03.006. PMID: 25795271. PMCID: PMC4424102.

231. Webber BR, **Tolar J**. From marrow to matrix: novel gene and cell therapies for epidermolysis bullosa. Mol Ther. Review. 2015 Jun;23(6):987-92. https://doi.org/10.1038/mt.2015.47. PMID: 25803200. PMCID: PMC4817762.
232. **Tolar J**, McGrath JA. The three-body problem of therapy with induced pluripotent stem cells. Genome Med. Research Highlight. 2015 Feb 20;7(1):15. https://doi.org/10.1186/s13073-015-0141-7. PMID: 25705260. PMCID: PMC4335559.
233. **Tolar J**, Sodani P, Symons H. Alternative donor transplant of benign primary hematologic disorders. Bone Marrow Transplant. Review. 2015 May;50(5):619-27. https://doi.org/10.1038/bmt.2015.1. PMID: 25665040. PMCID: PMC4424154.
234. **Tolar J**, Wagner JE. A biologic Velcro patch. N Engl J Med. Clinical Implications of Basic Research. 2015 Jan 22;372(4):382-4. https://doi.org/10.1056/NEJMcibr1414709. PMID: 25607432.
235. **Tolar J**, Tolar M. A living band-aid for epidermolysis bullosa. Blood Transfus. Editorial. 2015 Jan 15;13(1):1-2. https://doi.org/10.2450/2014.0289-14. PMID: 25636127. PMCID: PMC4317083.
236. **Tolar J**, McGrath JA. Augmentation of cutaneous wound healing by pharmacologic mobilization of endogenous bone marrow stem cells. J Invest Dermatol. Commentary. 2014 Sep;134(9):2312-4. https://doi.org/10.1038/jid.2014.209. PMID: 25120149.
237. **Tolar J**, Tolarova S, McGrath JA. On Medawar's 'Actively acquired tolerance of foreign cells'. Exp Dermatol. Commentary: My Favorite Historical Paper. 2014 Feb;23(2):97-8. https://doi.org/10.1111/exd.12227. PMID: 24476006.
238. Vanden Oever MJ, **Tolar J**. Advances in understanding and treating dystrophic epidermolysis bullosa. F1000Prime Rep. 2014 May 6;6:35. https://doi.org/10.12703/p6-35. PMID: 24860657. PMCID: PMC4017907.
239. **Tolar J**. Translating genome engineering to better clinical outcomes. Transl Res. Commentary. 2013 Apr;161(4):199-204. https://doi.org/10.1016/j.trsl.2013.01.004. PMID: 23416084.
240. **Tolar J**, Tolar M. Reinventing mesenchymal stromal cells. Cytotherapy. Commentary. 2012 Apr;14(4):388-90. https://doi.org/10.3109/14653249.2012.665631. PMID: 22420833.
241. **Tolar J**, Wagner JE. Management of severe epidermolysis bullosa by hematopoietic transplant: Principles, perspectives, and pitfalls. Exper Dermatol. Viewpoints. 2012 Dec;21(12):896-900. https://doi.org/10.1111/exd.12014. PMID: 23016552.
242. **Tolar J**, Becker PS, Clapp DW, Hanenberg H, de Heredia CD, Kiem HP, Navarro S, Qasba P, Rio P, Schmidt M, Sevilla J, Verhoeyen E, Thrasher AJ, Bueren J. Gene therapy for Fanconi anemia: one step closer to the clinic. Hum Gene Ther. Commentary. 2012 Feb;23(2):141-4. https://doi.org/10.1089/hum.2011.237. PMID: 22248350. PMCID: PMC3277737.
243. **Tolar J**, Mehta PA, Walters MC. Hematopoietic cell transplantation for nonmalignant disorders. Biol Blood Marrow Transplant. Review. 2012 Jan;18(1 Suppl):S166-71. https://doi.org/10.1016/j.bbmt.2011.10.023. PMID: 22226101.
244. **Tolar J**, Blazar BR, Wagner JE. Concise review: Transplantation of human hematopoietic cells for extracellular matrix protein deficiency in epidermolysis bullosa. Stem Cells. 2011;29(6):900-6. Cited in Cord Blood News 2011;(20) 26 May 2011. Cited in Global Medical Discovery (website). https://doi.org/10.1002/stem.647. PMID: 21557391.
245. **Tolar J**, Adair JE, Antoniou M, Bartholomae CC, Becker PS, Blazar BR, Bueren J, Carroll T, Cavazzana-Calvo M, Clapp DW, Dalgleish R, Galy A, Gaspar HB, Hanenberg H, Von Kalle C, Kiem HP, Lindeman D, Naldini L, Navarro S, Renella R, Rio P, Sevilla J, Schmidt M, Verhoeyen E, Wagner JE, Williams DA, Thrasher AJ. stem cell gene therapy for Fanconi anemia: Report from the 1st International Fanconi Anemia Gene Therapy Working Group Meeting. Mol Ther. Review. 2011 Jul;19(7):1193-8. https://doi.org/10.1038/mt.2011.78. PMID: 21540837. PMCID: PMC3129570.

246. **Tolar J**, Villeneuve P, Keating A. Mesenchymal stromal cells for graft-versus-host disease. Hum Gene Ther. Review. 2011;22(3):257-62. https://doi.org/10.1089/hum.2011.1104. PMID: 21288086.

247. **Tolar J**, Le Blanc K, Keating A, Blazar BR. Concise review: hitting the right spot with mesenchymal cells. Stem Cells. 2010 Aug;28(8):1446-55. https://doi.org/10.1002/stem.459. PMID: 20597105. PMCID: PMC3638893.

248. Boelens JJ*, Prasad VK*, **Tolar J***, Wynn RF*, Peters C (*co-first authors). Current international perspectives on hematopoietic stem cell transplantation for inherited metabolic disorders. Pediatr Clin North Am. Review. 2010 Feb;57(1):123-45. https://doi.org/10.1016/j.pcl.2009.11.004. PMID: 20307715.

249. **Tolar J**, Baker KS, Orchard P. Hematopoietic stem cell transplantation for metabolic storage diseases. Cell Ther Transplant. Review. 2010;2(7):e.000075.01. http://cttjournal.com/en/archive/tom-2-nomer-3-7/obzornye-stati/transplantatsiya-gemopoeticheskikh-stvolovykh-kletok-pri-metabolicheskikh-boleznyakh-nakopleniya/.

250. **Tolar J**, Eapen M, Orchard PJ, Blazar BR. Acid sphingomyelinase deficiency does not protect from graft-versus-host disease in transplant recipients with Niemann-Pick disease. Blood. Letter to the Editor. 2010 Jan 14;115(2):434-5. https://doi.org/10.1182/blood-2009-09-245167. PMID: 20075175.

251. **Tolar J**, Hippen KL, Blazar BR. Immune regulatory cells in umbilical cord blood: T regulatory cells and mesenchymal stromal cells. Brit J Haematol. Review. 2009;147(2):200-6. https://doi.org/10.1111/j.1365-2141.2009.07781.x. PMID: 19796269. PMCID: PMC3667699.

252. Savage SA, Dokal I, Armanios M, Aubert G, Cowen EW, Domingo DL, Giri N, Greene MH, Orchard PJ, **Tolar J**, Tsilou E, Van Waes C, Wong JMY, Young NS, Alter BP. Dyskeratosis congenita: the first NIH Clinical Research Workshop. Pediatr Blood Cancer. Meeting Report. 2009 Sep;53(3):520-3. https://doi.org/10.1002/pbc.22061. PMID: 19415736. PMCID: PMC2739803.

253. **Tolar J**, Neglia JP. Reply to: Case 4-2008: A pregnant woman with a swollen left breast and dyspnea. N Engl J Med. 2008 Jun 26;358(26):2848; author reply 2848-9. https://doi.org/10.1056/nejmc080467. PMID: 18579826.

254. Lund T, **Tolar J**. Reply to: Chimerism and tolerance in a recipient of a deceased-donor liver transplant. N Engl J Med. 2008 May 8;358(19):2075; author reply 2075. https://doi.org/10.1056/nejmc080395. PMID: 18463388.

255. Charnas L, Eichler F, Kohlschuetter A, **Tolar J**, Orchard PJ. Reply to: Reduced intensity conditioning haematopoietic stem cell transplantation with mesenchymal stromal cell infusion for the treatment of metachromatic leukodystrophy: a case report. Haematologica. 2008 May;93(5):e47; author reply e48. https://doi.org/10.3324/haematol.12774. PMID: 18450730.

256. Krishnamurti L, Bunn HF, Williams AM, **Tolar J**. Hematopoietic cell transplantation for hemoglobinopathies. Curr Prob Pediatr Adolesc Health Care. Review. 2008 Jan;38(1):6-18. https://doi.org/10.1016/j.cppeds.2007.10.002. PMID: 18068866.

257. Orchard PJ, Blazar BR, Wagner J, Charnas L, Krivit W, **Tolar J**. Hematopoietic cell therapy for metabolic disease. J Pediatr. Medical Progress. 2007 Oct;151(4):340-6. https://doi.org/10.1016/j.jpeds.2007.04.054. PMID: 17889065.

258. **Tolar J**, Orchard, P. Alpha-L-iduronidase therapy for mucopolysaccharidosis type I. Biologics. Review. 2008;2(4):743-51. Views as of 4/28/2016: 8,856. https://doi.org/10.2147/BTT.S3180. PMID: 19707455. PMCID: PMC2727896.

259. **Tolar J**, Teitelbaum SL, Orchard PJ. Osteopetrosis. N Engl J Med. Review. Mechanisms of disease. 2004 Dec 30;351(27):2839-49. https://doi.org/10.1056/NEJMra040952. PMID: 15625335.

260. **Tolar J**, Baker KS. New approaches in pediatric hematopoietic stem cell transplantation. Ebonyi Medical Journal 2:7-12, 2003.

261. **Tolar J**, Neglia JP. Transplacental and other routes of cancer transmission between individuals. J Pediatr Hematol Oncol. Review. 2003 Jun;25(6):430-4. http://journals.lww.com/jpho-online/Abstract/2003/06000/Transplacental_and_Other_Routes_of_Cancer.2.aspx. PMID: 12794519.

Faculty Opinions (formerly Faculty 1000) Articles Evaluated

1. **Tolar J** and Riedl J: Faculty Opinions Recommendation of [Matsuzaki S et al., PLoS ONE 2015 10(4):e0123578]. In Faculty Opinions, 09 Jul 2020; https://doi.org/10.3410/f.725454961.793572434.
2. **Tolar J** and Merkle S: Faculty Opinions Recommendation of [Kudo-Saito C et al., Cancer Res 2020 80(10):1981-1990]. In Faculty Opinions, 24 Jun 2020; https://doi.org/10.3410/f.737536179.793575522.
3. **Tolar J** and Benhamida J: Faculty Opinions Recommendation of [Jorgensen AM et al., Tissue Eng Part A 2020 26(9-10):512-526]. In Faculty Opinions, 24 Jun 2020; https://doi.org/10.3410/f.737119026.793575487.
4. **Tolar J** and Pruett C: Faculty Opinions Recommendation of [Nakamori M et al., Nat Genet 2020 52(2):146-159]. In Faculty Opinions, 24 Jun 2020; https://doi.org/10.3410/f.737369691.793575486.
5. **Tolar J** and Keith A: Faculty Opinions Recommendation of [Nyström A et al., Proc Natl Acad Sci USA 2018 115(4):E705-E714]. In Faculty Opinions, 24 Jun 2020; https://doi.org/10.3410/f.732404522.793575485.
6. **Tolar J** and Thompson E: F1000Prime Recommendation of [Lin A et al., Sci Transl Med 2019 11(509)]. In F1000Prime, 13 Nov 2019; https://doi.org/10.3410/f.736585207.793566947.
7. **Tolar J** and Keith A: F1000Prime Recommendation of [Hirai T et al., Immunity 2019 50(5):1249-1261.e5]. In F1000Prime, 14 Aug 2019; https://doi.org/10.3410/f.735436299.793563728.
8. **Tolar J** and Riedl J: F1000Prime Recommendation of [Mathur AN et al., Immunity 2019 50(3):655-667.e4]. In F1000Prime, 29 Jul 2019; https://doi.org/10.3410/f.735362636.793562455.
9. **Tolar J** and Patel D: F1000 Prime Recommendation of [Di Stefano B, et al. Nat Cell Biol 2016 Apr; 18(4):371-81]. In F1000 Prime, 16 May 2017; https://doi.org/10.3410/f.726216509.793517032.
10. **Tolar J** and Patel D: F1000Prime Recommendation of [Liu L et al. Nat Biotechnol 2016, 34(4):430-4]. In F1000Prime, 15 May 2017; https://doi.org/10.3410/f.726166266.793516146.
11. **Tolar J** and Patel D: F1000Prime Recommendation of [Ditadi A et al. Nat Cell Biol 2015, 17(5):580-91]. In F1000Prime, 15 May 2017; https://doi.org/10.3410/f.725451151.793516147.
12. **Tolar J** and Patel D: F1000Prime Recommendation of [Wang H et al. Cell Stem Cell 2016, 18(4):495-507]. In F1000Prime, 15 May 2017; https://doi.org/10.3410/f.726273014.793516916.
13. **Tolar J** and Patel D: F1000Prime Recommendation of [Mandegar MA et al. Cell Stem Cell 2016, 18(4):541-53]. In F1000Prime, 15 May 2017; https://doi.org/10.3410/f.726204448.793516822.
14. **Tolar J** and Hart B: F1000Prime Recommendation of [Wen S et al. Leukemia 2016, 30(11):2221-2231]. In F1000Prime, 06 Dec 2016; https://doi.org/10.3410/f.726337894.793525804.
15. **Tolar J** and Fey H: F1000 Prime Recommendation of [Gentles AJ, et al. Nat Med 2015 Aug; 21(8):938-45]. In F1000 Prime, 20 Jul 2016; https://doi.org/10.3410/f.725660593.793520921.
16. **Tolar J** and Fey H: F1000 Prime Recommendation of [Huch M, et al. Cell 2015 Jan 15; 160(1-2):299-312]. In F1000 Prime, 20 Jul 2016; https://doi.org/10.3410/f.725287909.793520918.
17. **Tolar J** and Jung P: F1000 Prime Recommendation of [Caiazzo M, et al. Nat Mater 2016 Mar; 15(3):344-52]. In F1000 Prime, 27 May 2016; https://doi.org/10.3410/f.726068328.793518601.
18. **Tolar J** and Patel D: F1000Prime Recommendation of [Kyttälä A, et al. Stem Cell Reports 2016 Feb 9;6(2):200-12] In F1000 Prime, 04 April 2016; https://doi.org/10.3410/f.726082668.793516149.
19. **Tolar J** and Manning B: F1000Prime Recommendation of [Linnemann C et al. Nat Med 2015, 21(1):81-5]. In F1000Prime, 04 Apr 2016; https://doi.org/10.3410/f.725303475.793515142..
20. **Tolar J** and Jung P: F1000Prime Recommendation of [Eng et al. Nat Commun 2016 Jan 19;7:10312] In F1000 Prime, 29 Mar 2016; https://doi.org/10.3410/f.726084402.793515700.

21. **Tolar J** and Patel D: F1000 Prime Recommendation of [Roybal KT, et al. Cell 2016 Feb 11; 164(4):770-9] In F1000 Prime,03 Mar 2016; https://doi.org/10.3410/f.726113687.793514841.
22. **Tolar J** and Patel D: F1000Prime Recommendation of [D'Souza SS et al. Stem Cell Reports 2016, 6(2):243-56]. In F1000Prime, 16 Feb 2016; https://doi.org/10.3410/f.726100629.793513984.
23. **Tolar J** and Fey H: F1000Prime Recommendations of [Janich P, et al. Cell Stem Cell 2013 Dec 5; 12(6): 745-53]. In F1000Prime, 18 Dec 2015; https://doi.org/10.3410/f.718140910.793512429.
24. **Tolar J** and Perdoni C: F1000Prime Recommendation of [von Dalowski F et al. Stem Cells 2016, 34(2):357-66]. In F1000Prime, 07 Oct 2015; https://doi.org/10.3410/f.725818596.793510172.
25. **Tolar J** and Fey H: F1000Prime Recommendation of [Mayer CT et al. Blood 2014, 124(20):3081-91]. In F1000Prime, 16 December 2014; https://doi.org/10.3410/f.718523045.793502277.
26. **Tolar J** and Fey H: F1000Prime Recommendation of [Lee J et al. Proc Natl Acad Sci U S A 2014, 111(6):2122-7]. In F1000Prime, 01 May 2014; https://doi.org/10.3410/f.718254202.793494379.
27. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Nagy N et al. J Invest Dermatol 2011, 131(8):1771-4]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345175.793493610.
28. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Woodley DT et al. Nat Med 2004, 10(7):693-5]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345174.793493609.
29. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Remington J et al. Mol Ther 2009, 17(1):26-33]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345173.793493608.
30. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [van den Akker PC et al. Hum Mutat 2011, 32(10):1100-7]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345172.793493607.
31. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Ortiz-Urda S et al. Gene Ther 2003, 10(13):1099-104]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345171.793493605.
32. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Murauer EM et al. J Invest Dermatol 2011, 131(1):74-83]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345170.793493603.
33. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Itoh M et al. PLoS ONE 2013, 8(10):e77673]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718151082.793493602.
34. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Uitto J et al. J Invest Dermatol 2012, 132(3 Pt 2):820-8]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345169.793493601.
35. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Pasmooij AM et al. J Invest Dermatol 2010, 130(10):2407-11]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.5642956.793493598.
36. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Liao Y et al. Cell Transplant 2014, 23(3):303-17]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345167.793493597.
37. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Tamai K et al. Proc Natl Acad Sci U S A 2011, 108(16):6609-14]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.9607956.793493596.
38. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Alexeev V et al. Cytotherapy 2011, 13(1):30-45]. In F1000Prime, 17 Apr 2014; https://doi.org/10.3410/f.718345165.793493593.
39. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Itoh M et al. Proc Natl Acad Sci U S A 2011, 108(21):8797-802]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.11001956.793493600.
40. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Fujita Y et al. Proc Natl Acad Sci U S A 2010, 107(32):14345-50]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345166.793493595.
41. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Almaani N et al. J Invest Dermatol 2010, 130(7):1937-40]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345168.793493599.
42. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Woodley DT et al. J Invest Dermatol 2013, 133(7):1910-3]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345164.793493592.

43. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Titeux M et al. Mol Ther 2010, 18(8):1509-18]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345163.793493591.
44. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Küttner V et al. Mol Syst Biol 2013, 9:657]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345161.793493590.
45. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Nyström A et al. J Clin Invest 2013, 123(8):3498-509]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718056659.793493589.
46. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Bruckner-Tuderman L and Has C, Matrix Biol 2014, 33:29-34]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718060536.793493588.
47. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Hovnanian A et al. J Clin Invest 1992, 90(3):1032-6]. In F1000Prime, 15 Apr 2014; https://doi.org/10.3410/f.718345160.793493587.
48. **Tolar J** and Perdoni C: F1000Prime Recommendation of [Chinnadurai R et al. J Immunol 2014]. In F1000Prime, 10 Feb 2014; https://doi.org/10.3410/f.718231994.793490408.
49. **Tolar J** and Fey H: F1000Prime Recommendation of [Balasiddaiah A et al. J Physiol Biochem 2013, 69(4):835-45]. In F1000Prime, 10 Jan 2014; https://doi.org/10.3410/f.718227615.793489244.
50. **Tolar J** and Fey H: F1000Prime Recommendation of [Vuoristo S et al. PLoS ONE 2013, 8(10):e76205]. In F1000Prime, 25 Oct 2013; https://doi.org/10.3410/f.718133467.793485651.
51. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Rais Y et al. Nature 2013, 502(7469):65-70]. In F1000Prime, 04 Oct 2013; https://doi.org/10.3410/f.718113987.793484216.
52. **Tolar J**: F1000Prime Recommendation of [Qi Y et al. J Invest Dermatol 2014, 134(2):526-37]. In F1000Prime, 03 Sep 2013; https://doi.org/10.3410/f.718060903.793482571.
53. **Tolar J**: F1000Prime Recommendation of [Hsueh YJ et al. J Cell Physiol 2013, 228(3):536-46]. In F1000Prime, 12 Jul 2013; https://doi.org/10.3410/f.718026430.793479733.
54. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Wang X et al. Mol Ther 2013]. In F1000Prime, 25 Jun 2013; https://doi.org/10.3410/f.718010068.793478287.
55. **Tolar J** and Fey H: F1000Prime Recommendation of [Schwartz RE et al. Proc Natl Acad Sci U S A 2012, 109(7):2544-8]. In F1000Prime, 03 Jun 2013; https://doi.org/10.3410/f.716748213.793477326.
56. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Wang H et al. Cell 2013, 153(4):910-8]. In F1000Prime, 03 Jun 2013. https://doi.org/10.3410/f.718007692.793477327.
57. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Araki R et al. Nature 2013, 494(7435):100-4]. In F1000Prime, 23 Jan 2013; https://doi.org/10.3410/f.717970767.793469197.
58. **Tolar J** and Bared K: F1000Prime Recommendation of [Doege CA et al. Nature 2012, 488(7413):652-5]. In F1000Prime, 14 Jan 2013; https://doi.org/10.3410/f.717968798.793468508.
59. **Tolar J** and Bared K: F1000Prime Recommendation of [Wesemann DR et al. Proc Natl Acad Sci U S A 2012, 109(34):13745-50]. In F1000Prime, 23 Oct 2012; https://doi.org/10.3410/f.717960044.793463251.
60. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Venereau E et al. J Exp Med 2012, 209(9):1519-28]. In F1000Prime, 23 Oct 2012; https://doi.org/10.3410/f.717953753.793463198.
61. **Tolar J** and Bared K: F1000Prime Recommendation of [Stadtfeld M et al. Nat Genet 2012, 44(4):398-405, S1-2]. In F1000Prime, 28 Jun 2012; https://doi.org/10.3410/f.717397803.792802804.
62. **Tolar J** and Weinreich M: F1000Prime Recommendation of [Jabara HH et al. Nat Immunol 2012, 13(6):612-20]. In F1000Prime, 15 Jun 2012; https://doi.org/10.3410/f.716298006.792252802.
63. **Tolar J** and Bared K: F1000Prime Recommendation of [Tavernier G et al. Biomaterials 2012, 33(2):412-7]. In F1000Prime, 12 Apr 2012; https://doi.org/10.3410/f.14264126.15777263.
64. **Tolar J** and Webber B: F1000Prime Recommendation of [Mochizuki-Kashio M et al. Blood 2011, 118(25):6553-61]. In F1000Prime, 15 Mar 2012; https://doi.org/10.3410/f.14001971.15455079.

65. **Tolar J** and Vanden Oever M: F1000Prime Recommendation of [Vaculik C et al. J Invest Dermatol 2012, 132(3 Pt 1):563-74]. In F1000Prime, 15 Feb 2012; https://doi.org/10.3410/f.13765956.15187056.
66. **Tolar J** and Bared K: F1000Prime Recommendation of [Liu GH et al. Nature 2011, 472(7342):221-5]. In F1000Prime, 22 Dec 2011; https://doi.org/10.3410/f.13411976.14785081.
67. **Tolar J** and Weinreich M: F1000Prime Recommendation of [Strid J et al. Science 2011, 334(6060):1293-7]. In F1000Prime, 22 Dec 2011; https://doi.org/10.3410/f.13411974.14785078.
68. **Tolar J** and Goetz C: F1000Prime Recommendation of [Sánchez L et al. Stem Cells 2010]. In F1000Prime, 10 May 2011; https://doi.org/10.3410/f.10099956.10860055. F1000Prime.com/10099956#eval10860055.
69. **Tolar J** and Goetz C: F1000Prime Recommendation of [Hu Q et al. Stem Cells 2010, 28(11):1981-91]. In F1000Prime, 01 Feb 2011; https://doi.org/10.3410/f.8170956.8583054.
70. **Tolar J** and Goetz C: F1000Prime Recommendation of [Biswas S et al. Blood 2010, 116(24):5237-46]. In F1000Prime, 14 Oct 2010; https://doi.org/10.3410/f.5509956.5530058.
71. **Tolar J** and Webber B: F1000Prime Recommendation of [Gilbert PM et al. Science 2010, 329(5995):1078-81]. In F1000Prime, 01 Sep 2010; https://doi.org/10.3410/f.4942962.4875062.
72. **Tolar J** and Goetz C: F1000Prime Recommendation of [Carette JE et al. Blood 2010, 115(20):4039-42]. In F1000Prime, 11 Aug 2010; https://doi.org/10.3410/f.4682958.4565057.
73. **Tolar J** and Goetz C: F1000Prime Recommendation of [Lai L and Jin J, Stem Cells 2009, 27(12):3012-20]. In F1000Prime, 26 May 2010; https://doi.org/10.3410/f.3348956.3037054.
74. **Tolar J** and Webber B: F1000Prime Recommendation of [Li TS and Marbán E, Stem Cells 2010, 28(7):1178-85]. In F1000Prime, 11 May 2010; https://doi.org/10.3410/f.3184962.2871062.
75. **Tolar J** and Highfill S: F1000Prime Recommendation of [Tipnis S et al. Immunol Cell Biol 2010, 88(8):795-806]. In F1000Prime, 05 May 2010; https://doi.org/10.3410/f.3119965.2804064.
76. **Tolar J** and Smith A: F1000Prime Recommendation of [Tarte K et al. Blood 2010, 115(8):1549-53]. In F1000Prime, 28 Apr 2010; https://doi.org/10.3410/f.3060958.2742056.

Chapters in Books

1. Mehta PA, **Tolar J**. "Fanconi Anemia." Initial posting February 14, 2002; Last revision March 8, 2018. In: Pagon RA, Adam MP, Ardinger HH, et al., editors. *GeneReviews®* [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2016.
2. Osborn M, **Tolar J**. "Cellular Engineering and Disease Modeling with Gene-Editing Nucleases." *Advances in Experimental Medicine and Biology, Vol. 895, Genome Editing: The Next Step in Gene Editing.* Hirsch M, Cathomen T, Porteus, M, eds. Springer, 2016.
3. **Tolar J**. "Novel Stem Cell Treatment Options." *Fanconi Anemia: Guidelines for Diagnosis and Management*. Frohnmayer D, Frohnmayer L, Guinan E, Kennedy T, Larsen K, eds. 4th ed. Fanconi Anemia Research Fund, 2015.
4. Agarwal S, Boulad F, Davies S, Dietz A, **Tolar J**. "Hematopoietic Cell Transplantation for "Dyskeratosis Congenita." In *CCCTAA Consortium Guidelines: Dyskeratosis Congenita and Telomere Biology Disorders: Diagnosis and Management Treatment Guidelines,* Savage S and Cook E, eds. First Edition 2015.
5. **Tolar J**, Osborn MJ, Daughters R, Banga A, Wagner J. "Regenerative Medicine: Multipotential Cell Therapy for Tissue Repair." *Williams Hematology 9E, 9th Edition.* Kaushansky K, Lichtman M, Prchal J, Levi MM, Press O, Burns L, Caligiuri M, eds. McGraw-Hill Education 2015.
6. **Tolar J**. "Translating Genome Engineering to Survival." *Translating Gene Therapy to the Clinic*. Laurence J, Franklin M, eds. Elsevier Inc. 2015.
7. Wagner JE, **Tolar J**, Auerbach AD, MacMillan ML. "Hematopoietic Cell Transplantation for Fanconi Anemia." *Thomas' Hematopoietic Cell Transplantation, Fifth Edition*. Appelbaum FR, Forman SJ, Negrin RS, Blume KG, eds. Blackwell Publishing, Wiley 2015.

8. **Tolar J**, Le Blanc K, Blazar BR. "MSCs for Graft-Versus-Host Disease." *Mesenchymal Stromal Cells: Biology and Clinical Applications*. Hematti P, Keating A, eds. Humana Press, Springer 2013.
9. **Tolar J**, Blazar BR, Wagner JE. "Bone marrow transplantation for recessive dystrophic epidermolysis bullosa." *Fitzpatrick's Dermatology in General Medicine*. Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, eds. AccessMedicine, McGraw-Hill 2011.
10. **Tolar J**, Le Blanc K, Blazar BR. "Mesenchymal stromal cells for graft versus host disease." *Mesenchymal stromal cells: Basic Biology & Clinical Applications*. Hematti P, Keating A, eds. Springer 2011.
11. Holec M, Železný F, Kléma J, **Tolar J**. "Integrating multiple-platform expression data through gene set features." *Lecture Notes in Computer Science: Lecture Notes in Bioinformatics*. Istrail S, Pevzner P, Waterman M, eds. Springer Berlin/Heidelberg 2009.
12. Kléma J, Železný F, Trajkovski I, Karel F, Crémilleux B, **Tolar J**. "Gene expression mining guided by background knowledge." *Data Mining and Medical Knowledge Management: Cases and Applications.* Berka P, Rauch J, Zighed DA, eds. IGI Global 2009.
13. Wilber A, **Tolar J**, Blazar BR, Verfaillie CM, Lakshimipathy U, Kaufman DS, McIvor RS. "Sleeping Beauty-mediated transposition in stem cells." *Emerging Technology Platforms for Stem Cells*. Lakshimipathy U, Chesnut JD, Thyagarajan B, eds. 1st ed. John Wiley & Sons, Inc. 2009.
14. **Tolar J**. "Novel treatment options." *Fanconi Anemia: Guidelines for Diagnosis and Management*. Eiler ME, Frohnmayer D, Frohnmayer L, Larsen K, Owen J, eds. 3rd ed. Fanconi Anemia Research Fund, 2008.
15. Wagner JE, **Tolar J**, Baker KS, MacMillan ML. "Unrelated donor hematopoietic stem cell transplantation." *Fanconi Anemia: Guidelines for Diagnosis and Management*. Eiler ME, Frohnmayer D, Frohnmayer L, Larsen K, Owen J, eds. 3rd ed. Fanconi Anemia Research Fund, 2008.
16. Kléma J, Železný F, Trajkovski I, Karel F, Crémilleux B, **Tolar J**. "Gene expression data mining guided by genomic background knowledge." *Data Mining and Medical Knowledge Management: Cases and Applications.* Berka P, ed. 1st ed. Hershey, PA: IGA Global, IDEA Group Publishing, 2008.

Other Publications

1. **Tolar J**. Sequencing with fire: pyrosequencing to advance understanding of genetic diseases. Children's Cancer Research Fund Bulletin, 2003.
2. **Tolar J**, Wagner JE, MacMillan ML. Fanconi anemia. Children's Cancer Research Fund Bulletin, 2002.
3. **Tolar J**: Biological characterization of naturally occurring mutations in an oncogenic variant of human papillomavirus type 11, PhD thesis, directed by Anthony J. Faras, PhD, 1996.

Patents

Issued

Talen-based gene correction	20160367588	10,172,880
Compositions and methods for the treatment of lysosomal storage disorders	20140212393	9,700,601
TALEN-based gene correction	20140256798	9,393,257
Cell therapy for the treatment of lysosomal storage disorders	20110243901	8,580,249
MAPC administration for the treatment of lysosomal storage disorders	20070009500	7,927,587

Applications pending

TALEN-based gene correction	20190054111
Human T cell derived from T cell-derived induced pluripotent stem cell and methods of making and using	20180362927

Method for correcting a genetic sequence	20180142262
Method for editing a genetic sequence	20170175143
Reducing inflammation using cell therapy	20130129686
Use of NK cell inhibition to facilitate persistence of engrafted MHC-I-negative cells	20080317740

Presentations

Invited Oral Presentations at International Professional Meetings, Conferences, etc.

1. "Legacy impact of BMT on EB." 53rd Annual European Society for Dermatological Research meeting, **Lisbon, Portugal.** 9/5/2024
2. World Congress on Rare Skin Disease, **Paris, France.** 6/12/2024
3. "Be Prepared…." Research the Cure webinar. 5/18/2023
4. "EB Therapeutics: Lessons from stem cell biology and transplantation." International EB Symposium, **Osaka, Japan** (virtual). 5/8/2023
5. "Embracing our aging world." 3rd Vietnam National Geriatric Conference, **Hanoi, Vietnam.** 11/12/2022
6. "Reaping Mendel's Harvest: Genome editing and the era of precision medicine." Mendel's 200th Birthday Celebration, **Brno, Czech Republic.** 7/21/2022
7. "Being able to cure EB, or treat but not cure EB; that is the question?" European Society of Dermatology Research (ESDR) Kitchen. "Sweet and Sour" debate with Dr. John McGrath. Webinar, **London, England**. 2/9/2022
8. "Vaccination: Lessons learned from the roll out in MN and national planning in Cuba: Minnesota Vaccines, variants, and cases." University of Minnesota-Cuba COVID-19 Forum, **Virtual.** 4/21/2021
9. "Containing COVID-19 in Minnesota, UMN's Role." University of Minnesota- Cuba COVID-19 Forum, **Virtual.** 12/16/2020
10. "Combining Approaches: BMT and systemic treatment," EB2020, **London, United Kingdom**. 1/21/2020
11. "Gene Manipulations and Therapies," EB2020, **London, United Kingdom**. 1/21/2020
12. "Curative vs. Disease-modifying Strategies," EB2020, **London, United Kingdom**. 1/20/2020
13. "Symbiosis of Artificial and Human Intelligence in Medicine," Czech Technical University in Prague, **Prague, Czech Republic.** 7/10/2019
14. "Stem Cells and Regenerative Medicine," Global Health Congress' Healthcare Innovation Conference, **Riyadh, Saudi Arabia**. 9/11/2018
15. "Venture Science of Regenerative Dermatology," European Dermatology Forum, **St. Gallen, Switzerland.** 1/25/2018
16. "Gene regeneration: From mechanism to therapy," The Human Genome in Healthcare, Genetics Society, **London, England.** 11/23/2017
17. "BMT for RDEB and JB: What we have learned, and how does this instruct what we do next?" EB2017/EB CliNet, **Salzburg, Germany.** 9/26/2017
18. "Hematopoietic Transplant in Epidermolysis Bullosa," IX Symposium of Epidermolysis Bullosa: Ninos Piel de Cristal, **Santiago, Chile.** 12/15/2016
19. "Gene Editing of *COL7A1*," IX Symposium of Epidermolysis Bullosa: Ninos Piel de Cristal, **Santiago, Chile.** 12/15/2016
20. "Gene edited stem cells: from cloning to clinic." European Society of Gene & Cell Therapy/International Society for Stem Cell Research Meeting, **Florence, Italy.** 10/16/2016

21. "Hematopoietic cell transplantation in epidermolysis bullosa, "Regenerative Medicine Conference, **Havana, Cuba.** 10/13/2016
22. "Cell therapy for RDEB." European Epidermolysis Bullosa Meeting, **Madrid, Spain.** 10/8/2016
23. "Hematopoietic cell transplantation for RDEB." International Fanconi Anemia Gene Therapy Working Group Meeting, **Madrid, Spain.** 10/7/2016
24. "How bone marrow transplantation changed my life with RDEB." St. John's Annual Oration, St. John's Dermatological Society, **London, England.** 6/2/2016
25. "Epidermolysis Bullosa: The Worst Disease You Never Heard of." Stem for Life Foundation and Pontifical Council for Culture: Third International Conference, How Science, Technology, Information and Communication Will Impact Society, **Vatican, Rome, Italy**. 4/25/2016
26. "Severe recessive epidermolysis bullosa and stem cell transplantation." Epidermolysis Bullosa and Stem Cell Transplant Symposium, Great Ormond Street Hospital, **London, England.** 4/5/2016
27. "Gene, Cell and Tissue Engineering for Regenerative Medicine," AMIT Award Program, **Seoul, South Korea**. 11/20/2015
28. "Three Body Problem of Cell and Gene Therapy for Epidermolysis Bullosa." European Society of Pediatric Dermatology, ESPD Summer School, **Lausanne, Switzerland**. 6/26/2015
29. "Regenerative Medicine: From ideas to clinical practice." Institute for Clinical and Experimental Medicine (IKEM), **Prague, Czech Republic**. 4/29/2015
30. "Blood and Marrow Transplantation for Severe Recessive Dystrophic Epidermolysis Bullosa." VIII Symposium Epidermolysis Bullosa, DebRA International, **Santiago, Chile**. 12/5/2014
31. "Gene Editing for Systemic Therapy of Recessive Dystrophic Epidermolysis Bullosa." VIII Symposium Epidermolysis Bullosa, DebRA International, **Santiago, Chile**. 12/5/2014
32. "Cellular and Subcellular Therapy for Extracellular Matrix Disorders." A*STAR, **Singapore**. 11/3/2014
33. "Gene Therapy for Fanconi Anemia: International platform." International Fanconi Anemia Gene Therapy Working Group, **Milan, Italy**. 10/16/2014
34. "Gene Therapy for Human Disease: From ideas to clinical practice." Institute of Klinical and Experimental Medicine (IKEM), **Prague, Czech Republic**. 6/26/2014
35. "DC-Specific Bone Marrow Transplantation: Less toxicity, better outcomes." Short Telomere Syndrome Conference, **Sydney, Australia**. 6/18/2014
36. "EB Scoring System." iscorEB Meeting, **Toronto, Canada**. 6/6/2014
37. "Cellular Therapy: Concepts and plans." **Osaka, Japan**. 2/14/2014
38. "Gene and Cell Therapy in Regenerative Medicine." European Society of Gene and Cell Therapy and SETGyC Collaborative Congress, **Madrid, Spain**. 10/26/2013
39. "Update on Epidermolysis Bullosa." International Working Group for Inborn Errors of Metabolism, **Leiden, The Netherlands**. 9/14/2013
40. "Stem Cell Therapy for Epidermolysis Bullosa." Epithelial Differentiation and Keratinization Gordon Conference, **Lucca, Italy**. 5/16/2013
41. "Dermatology: Genetics and pathogenetics." Session Moderator, Society of Investigative Dermatology, **Edinburgh, UK**. 5/10/2013
42. "Bone Marrow Transplantation Has Better Outcomes than Umbilical Cord Blood Transplantation in Recessive Dystrophic Epidermolysis Bullosa." Plenary Session, Society of Investigative Dermatology, **Edinburgh, UK**. 5/9/2013
43. "Rare Diseases and Common Disorders." Research Seminar, Charles University Medical School, **Prague, Czech Republic**. 4/26/2013

44. "Blood to Skin: Transplantation and regenerative medicine." Keynote Lecture, Charles University Medical School, **Prague, Czech Republic**. 4/25/2013
45. "Transplantation for Bone Marrow Failures." 6th International Symposium on MDA and Bone Marrow Failure Syndromes in Childhood, **Prague, Czech Republic**. 11/7/2012
46. "Refining Bone Marrow Transplantation in EB: Where now? And where next?" DebRA International Conference, **Marbella, Spain**. 11/5/2012
47. "Cell therapy – Induced Pluripotent Stem Cells." Session Chair, DebRA International Conference, **Marbella, Spain**. 11/5/2012
48. "International Gene Therapy Trial for FA." International Fanconi Anemia Gene Therapy Working Group meeting, **Versailles, France**. 10/25/2012
49. "Role of iPSCs in EB." DEBRA International Conference, **Toronto, Canada**. 9/15/2012
50. "Hematopoietic Stem Cell Transplantation in Epidermolysis Bullosa." Nobel Conference on Hematopoietic Stem Cells: From Basic Science to Regenerative Medicine, **Stockholm, Sweden**. 6/20/2012
51. "Hematopoietic and Mesenchymal Cell Transplantation after Myeloablative and Non-Myeloablative Conditioning for Recessive Dystrophic And Junctional Epidermolysis Bullosa." Conjoint 3rd Australasian Wound & Tissue Repair Society and 9th Australasian Society for Dermatology Research Conference, **Sydney, Australia**. 5/24/2012
52. "Stem Cell Transplantation for the Therapy of the Severe Epidermolysis Bullosa." International Meeting on Rare Diseases: Mechanisms and New Therapeutic Approaches, **Freiburg, Germany**. 2/23/2012
53. "Bone Marrow and Cord Blood for Treating Skin Collagen Deficiency in Epidermolysis Bullosa." Research Seminar, Institute of Child Health, **London, UK**. 2/21/2012
54. "Mucopolysaccharidosis Type I: Cell, protein and gene therapy." SPDM (Portuguese Metabolic Disorders Society) Meeting, **Porto, Portugal**. 11/4/2011
55. "Hematopoietic and Mesenchymal Stem Cell Transplantation for Recessive Dystrophic and Junctional Epidermolysis Bullosa." 22nd World Congress of Dermatology, **Seoul, Korea**. 5/26/2011
56. "Research Advances in Epidermolysis Bullosa." Tomorrow Think of Me International EB Research Fundraiser, **Toronto, Canada**. 12/14/2009
57. "Bone Marrow Transplantation for Epidermolysis Bullosa Therapy: Current challenges and future prospects." Conference EB2009, **Vienna, Austria**. 9/7/2009
58. "Transplant Outcomes in Mucopolysaccharidosis Type I." 2009 Expert Panel on the Early Diagnosis, Intervention, and Outcome of MPS I Disease, **Reykjavik, Iceland**. 8/1/2009
59. "Adult Stem Cells for Treatment of Recessive Dystrophic Epidermolysis Bullosa." 69th Annual Society for Investigative Dermatology Meeting, **Montreal, Canada**. 5/8/2009
60. "Therapy with Disease-specific Stem Cells." Pan Pacific Symposium on Stem Cell Research 2009, **Taichung, Taiwan**. 4/12/2009
61. "MSC/MAPC to Enhance Cardiac Function." 35th Annual Meeting of the EBMT, **Göteborg, Sweden**. 4/1/2009
62. "Looking Ahead in Cell Therapy for Lethal Nonmalignant Diseases." Research Seminar, Princess Margaret Hospital, **Toronto, Canada**. 2/9/2009
63. "Central Nervous System Symptoms in Mucopolysaccharidosis type I: What can be done?" Latin American Symposium MPS1, **Mexico City, Mexico**. 8/26/2008
64. "Combination of Enzyme and Stem Cell Therapy for Mucopolysaccharidosis type I." Latin American Symposium MPS1, **Mexico City, Mexico**. 8/26/2008

65. "Hematopoietic Cell Transplantation for Mucopolysaccharidosis type I." MPS I Co-Modality Working Group, **Montreal, Canada**. 5/7/2008
66. "Enzyme Replacement Therapy for Hurler Syndrome." Lysosomal Storage Disease Club Meeting, **Toronto, Canada**. 5/1/2008
67. "Adult Stromal Cells and Immune System: Rules of engagement." Karolinska Institute, Division of Clinical Immunology and Center for Allogeneic Stem Cell Transplantation, **Stockholm, Sweden**. 6/8/2007
68. "Hemoglobinopathies—To BMT or not to BMT?" Session Chair at the Annual Meeting of American Society of Pediatric Hematology/Oncology and Pediatric Academic Societies Annual Meeting, **Toronto, Canada**. 5/4/2007
69. "Non-viral Transfer of Human FA-C gene into Neonatal Fanconi Anemia C Mice." Fanconi Anemia Scientific Symposium, **Geneva, Switzerland**. 10/1/2005

Invited Oral Presentations at National Professional Meetings, Conferences, etc.

1. "Deans Leading Change." Big 10 Academic Alliance, Academic Leadership Program, **virtual**. 2/9/2024
2. "Stem cell medicines for EB." Debra Care Conference, keynote speech, **Denver, CO.** 7/18/2022
3. "ABCB5+ MSCs: a new approach to inflammation." Debra Care Conference, **Denver, CO.** 7/17/2022
4. "Minnesota Medical Miracles: Then and Now." Alumni Update. **Naples, FL.** 1/18/2019
5. "BMT for RDEB: What has been learned and what is next," DebRA Care Conference, **Phoenix, AZ.** 7/24/2018
6. "Stem cell gene therapy for genetic disorders," Keystone Symposium, **Keystone, CO.** 2/13/2018
7. "Cell-protein- and gene-based therapies for EB." World Congress of Pediatric Dermatology, **Chicago, IL.** 7/6/2017
8. "Type VII collagen (C7) expression and chimerism after bone marrow/cord blood transplantation (BMCBT) for severe generalized recessive dystrophic epidermolysis bullosa (RDEB)," Society for Investigative Dermatology Annual Meeting, **Portland, OR.** 4/28/2017
9. "Therapeutic DNA Repair: From Cloning to Clinic," New York Academy of Science, **New York City, NY.** 4/11/2017
10. "Best practices for effective collaboration," **World Stem Cell Summit, West Palm Beach, FL.** 12/8/2016
11. "New Genes and Gene Therapy", Session Co-chair, Fanconi Anemia Research Symposium, **Seattle, WA.** 9/18/2016
12. "Traditional Stem Cell Transplant." Camp Sunshine, **Portland, ME.** 9/16/2016
13. "Dyskeratosis Congenita-specific Bone Marrow Transplantation: Less Toxicity, Better Outcomes." Camp Sunshine, **Portland, ME.** 9/16/2016
14. "Do No Harm: Bone marrow transplant for severe generalized epidermolysis bullosa." Dystrophic Epidermolysis Bullosa Research Association of America Conference, **Grapevine, TX.** 7/26/2016
15. "Bone Marrow Stem Cells to Treat Epidermolysis Bullosa." Montagna Symposium on the Biology of Skin, **Salishan, OR**. 10/18/2015
16. "Pre-transplant Conditioning for RDEB: Less is more." Society for Investigative Dermatology meeting, **Atlanta, GA**. 5/7/2015
17. "RDEB: Bone marrow transplantation & corneal fragility." DebRA Patient Care Conference, **Atlanta, GA**. 5/6/2015
18. "From Marrow to Matrix." Grand Rounds, Herman B. Wells Center for Pediatric Research, Department of Pediatrics, Indiana University, **Indianapolis, IN**. 1/8/2015

19. "Patience and Fortitude." Jackson Gabriel Silver Benefit, **New York, NY**. 11/6/2014
20. Epidermolysis Bullosa Family Panel Q&A, UCLA, **Los Angeles, CA**. 9/21/2014
21. "Fanconi Anemia Therapeutics: Past, present, and future." Fanconi Anemia Research Fund, **Washington, DC**. 9/19/2014
22. Epidermolysis Bullosa Scoring System (iscorEB) validation meeting, presentation, and clinic, **Denver, CO**. 8/23/2014
23. "Blood and Marrow Transplantation for Severe EB." DebRA US Patient Care Conference, **Nashville, TN**. 7/30/2014
24. "Stem Cell Therapy for MPS I - Hurler Syndrome." Future Directions in MPS I Symposium, **Washington, DC**. 5/20/2014
25. "Stem Cell Expansion for Bone Marrow Failure Syndromes." Novartis, **San Diego, CA**. 2/19/2014
26. "Gene Therapy Working Group Update." Annual Planning Meeting, Fanconi Anemia Research Fund, **Portland, OR**. 1/24/2014
27. "Reaching for the Stars: The promise of stem cells and the future of regenerative medicine." University of Minnesota MinneCollege, **Naples, FL**. 1/18/2014
28. "Fatal Genodermatosis Epidermolysis Bullosa: Knowledge is therapy." Pediatric Grand Rounds, University of California, **Los Angeles, CA**. 11/21/2013
29. **"**Inducible pluripotent stem cells." Cell-Based Therapies Symposia, Nationwide Children's Hospital, **Columbus, OH**. 10/14/2013
30. "Refining Hematopoietic Cell Transplantation in Dyskeratosis Congenita: Where now? And where next?" Telomeres and Disease, Cold Spring Harbor Laboratory, **Cold Spring Harbor, New York, NY**. 9/10/2013
31. "Fanconi Anemia Gene Therapy: Where are we now? Where we go next?" International Fanconi Anemia Gene Therapy Working Group, **Boston, MA**. 9/16/2013
32. "Blood and Marrow Transplant for Tissue Repair." Hematology-Oncology Research Conference seminar series, Case Western Reserve University, **Cleveland, OH**. 8/7/2013
33. "Two Strategies, One Goal: Cell and gene therapy for genodermatoses." Keynote Address, Skin Center Research Grant Retreat, **Denver, CO**. 6/29/2013
34. "Translational Research in Genodermatoses." visiting professor, Shriners Research Center, **Portland, OR**. 6/12/2013-6/14/2013
35. "Alternative Allografts in Bone Marrow Failure Syndromes Including SAA." First Annual Tandem ASPHO/PBMTC Educational Meeting, **Miami, FL**. 4/24/2013
36. "Novel Treatment Options for Fanconi Anemia." Fanconi Anemia Research Fund Scientific Advisory Board, **Washington, DC**. 4/5/2013
37. "Harnessing Stem Cell Gene Biology to Combat Genodermatoses." American Society for Blood and Marrow Transplantation/International Pachyonychia Congenita Project, **Salt Lake City, UT**. 2/14/2013
38. "Improving Hematopoietic Cell Transplantation in Epidermolysis Bullosa." American Society of Hematology Meeting, **Atlanta, GA**. 12/6/2012
39. "Can Stem Cells Cure Cutaneous Diseases?" Montagna Symposium on the Biology of Skin, **Salishan, OR**. 10/12/2012
40. "Transplantation: Point/counterpoint in the landscape of change." Session Chair, Fanconi Anemia Research Fund Annual Meeting, **Denver, CO**. 9/28/2012
41. "The Pursuit of Stem Cell Expansion." Session Chair, Fanconi Anemia Research Fund Annual Meeting, **Denver, CO**. 9/28/2012

42. "Gene Therapy for Fanconi Anemia." Fanconi Anemia Research Fund Family Meeting, **Portland, ME**. 8/13/2012
43. "Stem Cell Therapy for Extracellular Matrix Disorders." DebRA of America 2012 Patient Care Conference, **Orlando, FL**. 7/31/2012
44. "Stem Cell Transplantation for the Therapy of Skin Diseases." American Society of Gene & Cell Therapy 15th Annual Meeting, Emerging Field Review Session, **Philadelphia, PA**. 5/16/2012
45. "Personalized Induced Pluripotent Stem Cells for Optimizing EB Treatment." Society for Investigative Dermatology Meeting, **Raleigh, NC**. 5/11/2012
46. "Stem Cells for Skin Diseases." Keynote speaker, International Pachyonchia Congenita Consortium Annual Meeting, **Raleigh, NC**. 5/9/2012
47. "Clinical Trial of Allogeneic Hematopoietic Transplantation for Rett Syndrome." Panel Discussion, **New York, NY**. 2/18/2012
48. "Bone Marrow is the Preferred Graft for Allogeneic HCT in Severe Epidermolysis Bullosa." American Society for Blood and Marrow Transplantation Meeting, **Salt Lake City, UT**. 2/5/2012
49. "Hematopoietic Cells for Extracellular Matrix Deficiency." American Society for Blood and Marrow Transplantation Meeting, **San Diego, CA**. 2/5/2012
50. "Bone Marrow and Cord Blood for Treating Skin Collagen Deficiency in Epidermolysis Bullosa." Grand Rounds, University of Colorado, **Denver, CO**. 1/19/2012
51. Moderator for American Society of Hematology Special Session, "Bone Marrow Failure: Bone marrow failure in severe aplastic anemia and dyskeratosis congenita." **San Diego, CA**. 12/11/2011
52. "Can Bone Marrow Cells Cure Cutaneous Diseases?" Montagna Symposium on the Biology of Skin, **Portland, OR**. 9/15/2011
53. "Novel Stem Cell Transplantation Strategies for Rare Inherited Pediatric Disorders." Grand Rounds, Indiana University, **Indianapolis, IN**. 9/1/2011
54. "Hematogenous Cells in Skin Regeneration." invited lecture, **Cleveland, OH**. 8/22/2011
55. "Stem Cell Therapy for Rett syndrome." Rett Symposium, **New York, NY**. 8/19/2011
56. "Hematogenous Cells for Skin Extracellular Matrix Deficiency." Translational Opportunities for the Heritable Disorders of Connective Tissue, **Portland, OR**. 7/11/2011
57. "Bone Marrow and Cord Blood Cells for Treating Skin Collagen Deficiency in Epidermolysis Bullosa." Grand Rounds, Children's Hospital of Philadelphia, **Philadelphia, PA**. 6/20/2011
58. "Hematopoietic Cells for Extracellular Matrix Deficiency." Keynote Address, CLEFT, **San Francisco, CA**. 6/10/2011
59. "Epidermolysis Bullosa: Rules and tools." Center for Cell and Gene Therapy Seminar, Baylor College of Medicine, **Houston, TX**. 5/17/2011
60. "Hematopoietic and Mesenchymal Stem Cell Transplantation for Recessive Dystrophic and Junctional Epidermolysis Bullosa." Plenary session, Society for Investigative Dermatology Annual Meeting, **Phoenix, AZ**. 5/5/2011
61. "Hematopoietic Transplantation: New rules and tools for congenital disorders." Pediatric Hematology/Oncology Clinical Seminar, Children's Hospital Boston, **Boston, MA**. 4/7/2011
62. "Bone Marrow Cells for Correction of Extracellular Matrix Disorder Epidermolysis Bullosa." Pediatric Hematology/Oncology Research Seminar, Children's Hospital Boston, **Boston, MA**. 4/7/2011
63. "Mucopolysaccharidosis Type I: New rules." Grand Rounds, Miami Children's Hospital, **Miami, FL**. 2/22/2011

64. "Bone Marrow Failure: Genetics and pathogenetics." Session Moderator, American Society of Hematology Meeting, **Orlando, FL**. 12/6/2010
65. "What do You Need to Know?" Dyskeratosis Congenita Outreach Family Camp Sunshine Conference, **Portland, ME**. 10/1/2010
66. "Bone Marrow Transplantation for Recessive Dystrophic Epidermolysis Bullosa." Grand Rounds, University of California – Davis, **Sacramento, CA**. 7/7/2010
67. "The Future of Fanconi Anemia Research." KATA Association's Brave Hearts Hoot 'N' Holler Event, **Denver, CO**. 11/21/2009
68. "The Mucopolysaccharidosis Type I Transplant Experience." Hematopoietic Cell Transplantation in Neurometabolic Diseases Conference, **Buffalo, NY**. 8/11/2009
69. "Transforming Children's Health through Breakthrough Research and Care at the University of Minnesota." MinneCollege, University of Minnesota, **Phoenix, AZ**. 3/7/2009
70. "Antioxidant Neuroprotection with Hematopoietic Cell Transplantation in Cerebral Adrenoleukodystrophy." Lysosomal Disease Network/WORLD Symposium, **Las Vegas, NV**. 2/15/2008
71. "Early Complications after Blood and Marrow Transplantation." Grand Rounds, Lutheran General Children's Hospital, **Chicago, IL**. 1/11/2008
72. "Host Factors in Stromal Stem Cell Transplantation." Research Seminar, Tulane University Health Sciences Center, Center for Gene Therapy, **New Orleans, LA**. 9/6/2007
73. "Risk Factors for Recurrence and Late Complications after Hematopoietic Transplantation." Session Chair at the American Society of Hematology Annual Meeting, **Orlando, FL**. 12/11/2006
74. "Enzyme Replacement Therapy Prior to and after Transplantation in MPS I." Third Annual MPS I Symposium/Current Treatment and Future Directions, **Orlando, FL**. 5/19/2006
75. "Hematopoietic Cell Transplantation—an Update." Session Chair at the American Society of Pediatric Hematology/Oncology and Pediatric Academic Societies Annual Meeting, **San Francisco, CA**. 4/29/2006
76. "Adult Stem Cells—A Primer for the Clinician." Session Chair at the American Society of Pediatric Hematology/Oncology and Pediatric Academic Societies Annual Meeting, **San Francisco, CA**. 4/29/2006
77. "Multipotent Adult Progenitor Cells Improve Aortic Insufficiency in Murine Model of Hurler Syndrome." Child Health Research Centers Annual Retreat, **Salt Lake City, UT**. 9/17/2005
78. "Gene Therapy—A Primer for the Clinician." Session Chair at the American Society of Pediatric Hematology/Oncology and Pediatric Academic Societies Annual Meeting, **Washington, DC**. 5/16/2005
79. "MAPC Reduce GAG Accumulation in a Murine Model of Hurler Syndrome." Lysosomal Disease Network/WORLD Symposium, **Minneapolis, MN**. 5/13/2004
80. "Idiopathic Acquired Aplastic Anemia." Non-Immune Cytopenias Workshop, American Society of Pediatric Hematology/Oncology and Pediatric Academic Societies Annual Meeting, **San Francisco, CA**. 4/30/2004

Invited Oral Presentations at Local and Regional Professional Meetings, Conferences, etc.

1. "The Changing Face of Medical Education," Internal Medicine Grand Rounds, Regions Hospital, St Paul (remote). 8/25/2021
2. "When a Pandemic Hits: How the University of Minnesota Medical School Responded to Overnight Change," Star Tribune Webinar, Minneapolis (remote). 8/20/2020
3. "A Time of Social Change," Nursing DNP DEEP Day, Minneapolis (remote). 6/4/2020
4. "The Path to Leadership," Academic Leadership Program Panel, Minneapolis (remote). 5/27/2020

5. "Pandemic Times," Walleye Tank: COVID-19 Showcase, Minneapolis (remote). 5/15/2020
6. "The Power of Community," 5th Annual Rare Disease Day, Minneapolis. 2/28/2020
7. "Walk Back to Your Body." Weisman Art Museum Artist-Collaborator Event, Minneapolis. 12/5/2019
8. "One Day Can Change Your Life." IEM Inspire Conference, Minneapolis. 11/7/2019
9. "Preparing for the Workforce to Better Engage Patients in Their Health." 2019 Many Faces of Community Health Conference, Minneapolis. 10/31/2019
10. "Are We Ready for Engaged Patients? Training Clinicians for the Future." Manova Global Summit on the Future of Health, Minneapolis. 10/15/2019
11. "50 Years of Forward Thinking." Family Medicine and Community Health 50th Anniversary Celebration, St. Paul. 10/11/2019
12. "Why Should We Care? Social Determinants of Health." Itasca Project Meeting, Minneapolis. 10/10/2019
13. "Symbiosis and Autopoiesis of Engineering and Medicine." Institute for Engineering in Medicine Annual Conference and Retreat, Minneapolis. 9/23/2019
14. "Insight and Advice on Leadership." LEAD Pediatrics Kickoff, Minneapolis. 9/17/2019
15. "Balancing Clinical and Financial ROI of Artificial Intelligence." CEO/MD Panel Moderator. CONVENE 2019: The Intersection of the Medical Industry and Data Science, Minneapolis. 9/13/2019
16. "Honoring Tom Olson." Mill City Clinic Celebration, Minneapolis. 8/19/2019
17. "Institute for Child and Adolescent Brain Health." Minnesota Masonic Charities Retreat, Lake Nebagamon, WI. 8/7/2019
18. "Veritas Caput." Itasca Project Meeting - First 1,000 Days, St. Paul. 5/31/2019
19. "Three Images." 110th Anniversary School of Nursing Celebration, Minneapolis. 5/13/2019
20. "Healthy Aging…for all of us." Spotlight on the Science of Healthy Aging Conference, Minneapolis. 5/7/2019
21. "The Importance of Developing a Strong Leadership Bench." Senior VP Leadership Academy, Minneapolis. 2/18/2019
22. "Current State of the Medical School and Vision for the Future." Senior Physicians Association Luncheon, Twin Cities Medical Society, Minneapolis. 1/15/2019
23. "The First 1000 Days of Life." Itasca Project Meeting, Minneapolis. 11/9/2018
24. "The World of Medicine: My roles, my vision." Office of General Counsel Retreat, Minneapolis. 11/8/2018
25. "Lessons from failure: Leadership and its impact on Fairview negotiations and partnership." Graduate Medical Education Leadership Conference, Minneapolis. 10/19/2018
26. "One Good Idea Makes a Difference in the World." Community-University Health Care Center's 25th Anniversary of Stinson Leonard Street, Minneapolis. 10/15/2018
27. "Discovery Transforms Medicine." Healthcare Startup Day Minnesota with US Dept of Health & Human Services, Minneapolis. 10/15/2018
28. "Practicing High Definition Medicine." Minnesota Academy of Medicine, St. Paul. 10/2/2018
29. "Interprofessional Welcome." Nexus Summit 2018, Minneapolis. 7/29/2018
30. "Medicine from Gene Therapy." Genome Science Café, Minneapolis. 7/19/2018
31. "We Can't 'Accidentally' Train the Health Care Providers of the Future to Work Together." National Center for Interprofessional Practice and Education, Minneapolis. 5/3/2018
32. "Impact of National Institute of Allergy and Infectious Diseases and the National Institute of Environmental Health Sciences." "NIH 3rd International Conference on One Medicine One Science (iCOMOS), Minneapolis. 5/2/2018

33. "Quality of Care." Mill City Clinic Expansion, Minneapolis. 4/23/2018
34. "The Importance of Basic Science." Annette L. Boman Cancer Research Symposium, Duluth, MN. 11/2/2017
35. "University of Minnesota: Translating Regenerative Medicine Practices." Mayo Clinic, Rochester, MN. 4/21/17
36. "The Challenges of Informed Consent: Research with Children, Adolescents & Adults." Panel Discussion Moderator. University of Minnesota Research Ethics Conference, Minneapolis. 3/8/2017
37. "The worst disease you never heard of...and why it matters to you." TEDxFargo, Fargo, ND. 7/21/2016
38. "From cloning to clinic: Regenerative medicine in Minnesota." Regenerative Medicine Minnesota 1st Annual Idea Exchange Celebration, Minneapolis. 6/14/2016
39. "Dragon's teeth: induced pluripotent stem cells to study germ cell tumors." University of Minnesota Germline Symposium, Minneapolis. 5/10/2016
40. "Systems: Stem cell biology," Boston Scientific, Minneapolis. 5/6/2016
41. "Regenerative Medicine: A necessary solution," CEO Roundtable Winsights Network, Minneapolis. 5/6/2016
42. "It is not rare—for you, for society and for science," Stem Cell Institute/Center for Orphan Disease Research Rare Disease Day Program, University of Minnesota, Minneapolis. 3/11/2016
43. "Dyskeratosis Congenita. Disease-specific Bone Marrow Transplantation: Less toxicity, better outcomes." Academy for Clinical Laboratory Physicians and Scientists, Minneapolis. 5/30/2015
44. "Hope that the Road Is a Long One." Mayo Clinic Research Fellows Association, Rochester. 5/21/2015
45. "If You Think Research Is Expensive, Try Disease." Stem Cell Institute/Center for Orphan Disease Research Rare Disease Day Program, University of Minnesota, Minneapolis. 2/26/2015
46. "Reaching For the Stars: The promise of stem cells and the future of regenerative medicine." Mentor Connection Program, Plymouth District Services Center, Plymouth. 12/1/2014
47. "Update." Lindhal Innovations Fund Awards, University of Minnesota, Minneapolis. 11/20/2014
48. "Using Stem Cell Biology to Change the Practice of Medicine." Mindstretch guest lecturer; John B. Coleman Lecture Series, St. Paul. 10/29/2014
49. "Legacy of the Department of Pediatrics – Cell Therapies." Golden Cane Ceremony, McNamara Alumni Center, Minneapolis. 10/6/2014
50. "Reject Complacency." Report to the Board of Regents, University of Minnesota, Minneapolis. 9/12/2014
51. "Stem Cell Gene Therapy for Fatal Genodermatosis." Regeneration: Recycle, Reuse & Renew, MinnCResT Summer Symposium, Minneapolis. 7/16/2014
52. "Regenerative Medicine at the University of Minnesota." Report to the Board of Regents, University of Minnesota, Minneapolis. 6/12/2014
53. "Cell Regeneration: How Human Cells are Becoming Insulin-Producing Islet Cells." University of Minnesota Foundation Spotlight on Diabetes, Minneapolis. 5/29/2014
54. "Stem Cell Therapy for MPS I-Hurler." University of Minnesota Foundation, home of Patti Dickson, Wayzata. 5/20/2014
55. "Molecular Surgery for Fanconi Anemia." University of Minnesota and Mayo Joint Showcase, Minneapolis. 5/20/2014
56. Panel Member "Understanding Your Genome." University of Minnesota, Minneapolis. 5/19/2014
57. "Ideal and Support: Secret sauce." Winefest, Children's Cancer Research Fund, Minneapolis. 5/10/2014
58. "UMN Regenerative Medicine: From ideas to clinical practice." Report to the Board of Regents, University of Minnesota, Minneapolis. 5/8/2014

59. Panel Moderator "Rare Diseases – Academia, Industry, Patients & Support Groups." Rare Disease Day, Minneapolis. 2/27/2014
60. "2020 Vision for Regenerative Medicine." Stem Cell Institute presentation to the Fox & Hounds Group, University of Minnesota, Minneapolis. 2/26/2014
61. "The Creative Destruction of Genes." Stem Cell Institute Weekly Research Seminar, University of Minnesota, Minneapolis. 1/29/2014
62. "Regeneration of the Stem Cell Institute." Research Finance Group, University of Minnesota, Minneapolis. 1/29/2014
63. "Adjacent Possible: Bone marrow cells in skin regeneration." UMR Connects Professional Speaker Series, University of Minnesota, Rochester. 12/17/2013
64. "You Are Solving the Problems." Pioneering Unique Cures for Kids (PUCK) Breakfast Talk, Minneapolis. 12/14/2013
65. "Treatment of Lethal Skin Diseases by Bone Marrow Transplantation: Murine models." Research Animal Resources, University of Minnesota, Minneapolis. 10/2/2013
66. "4th Age of Research." Stem Cell Institute presentation to the Czech Ambassador, University of Minnesota, Minneapolis. 7/31/2013
67. "Regenerative Medicine at the University of Minnesota." University of Minnesota Foundation Board of Overseers, Minneapolis. 7/24/2013
68. "Mission Adjacent Possible: School of Dentistry and the Stem Cell Institute." School of Dentistry, University of Minnesota, Minneapolis. 7/9/2013
69. "Two Strategies, One Goal: Cell and gene therapy for epidermolysis bullosa." Stem Cell Institute Seminar, University of Minnesota, Minneapolis. 4/17/2013
70. "Seeing Regeneration: Opportunities for collaboration with the Stem Cell Institute." Spring Vision Symposium II: degeneration, regeneration and neuroprotection in the retina and brain, University of Minnesota, Minneapolis. 4/12/2013
71. "Stem Cell Institute: Discovery, education and translation." Caffeinated Conversations, Center for Veterinary Medicine, University of Minnesota, St. Paul. 3/19/2013
72. "Learning from a Paradox: Rare diseases for the masses." Rare Disease Day 2013 Special Seminar, Center for Orphan Drug Research, College of Pharmacy, University of Minnesota, Minneapolis. 2/28/2013
73. "Stem Cell Institute: Vision." University of Minnesota Foundation, Minneapolis. 2/26/2013
74. "Stem Cell Institute Vision and opportunities." Pharmacology Faculty, University of Minnesota, Minneapolis. 2/22/2013
75. "Bone Marrow Transplantation for Epidermolysis Bullosa." Local Metro Minnesota Association of Pediatric Hematology and Oncology Nurses Annual Conference, Minneapolis. 2/21/2013
76. "Icebreaker: Vision." Stem Cell Institute, University of Minnesota, Minneapolis. 1/7/2013
77. "Problems Cannot Be Solved by the Same Level of Thinking that Created Them." Division of Epigenetics, University of Minnesota, Minneapolis. 12/17/2012
78. "Hematopoietic Cells for Extracellular Matrix Deficiency." Stem Cell Institute Weekly Research Seminar, University of Minnesota, Minneapolis. 9/26/2012
79. "Bench to Bedside (and Back)." Mini Medical School, Academic Health Center, University of Minnesota, Minneapolis. 9/25/2012
80. "Reinventing Blood and Marrow Transplant." Lillehei Heart Institute, University of Minnesota, Minneapolis. 6/6/2012

81. "BMT for Genetic Diseases." Pediatric BMT/Hematology/Oncology Nursing Symposium 2012, Amplatz Children's Hospital, Minneapolis. 1/26/2012
82. "Bench to Bedside." Mini Medical School, Children's Cancer Research Fund, Minneapolis. 10/11/2011
83. "Stem Cell Therapies in Dermatology: A manuscript review." Department of Dermatology Journal Club, University of Minnesota, Minneapolis. 7/6/2011
84. "Epidermolysis Bullosa: Terminal desperation and terminal optimism." Department of Surgery, University of Minnesota, Minneapolis. 6/8/2011
85. "Grow Your Own Transplant." Third Thursday Discussion, University of Minnesota, Minneapolis. 2/17/2011
86. "Hematopoietic Cell Transplantation for Correction of Extracellular Matrix Disorder, Recessive Dystrophic Epidermolysis Bullosa." Lillehei Heart Institute Lecture, University of Minnesota, Minneapolis. 3/17/2010
87. "Finding Tomorrow's Answers Today in Bone Marrow Transplantation at University of Minnesota Amplatz Children's Hospital." U of M Alumni Association Statewide Speaker Tour, Plymouth Rotary, Plymouth. 3/4/2010
88. "Blood and Marrow Transplant/Stem Cell Repair." 2nd Annual Institute for Engineering in Medicine Symposium, University of Minnesota, Minneapolis. 12/10/2009
89. "What's New in Blood and Marrow Transplantation: Clinical and research update." Idiopathic and Congenital Marrow Failure Syndromes Series, University of Minnesota, Minneapolis. 11/7/2008
90. "What Do Epidermolysis Bullosa, Mucopolysaccharidosis and Adrenoleukodystrophy Have in Common?" University Pediatrics Foundation, St Paul. 10/15/2008
91. "Novel Therapies in Bone Marrow Transplantation." Minnesota Medical Foundation, University of Minnesota, Minneapolis. 10/13/2008
92. "Stem Cell Therapy: Science or science fiction?" Dental Science Club, St Paul. 9/24/2008
93. "Stem Cell Research at the University of Minnesota." Children's Cancer Research Fund, Minneapolis. 9/16/2008
94. "Stem Cell Therapy for Extracellular Matrix Disorders." Stem Cell Institute Weekly Research Seminar, University of Minnesota, Minneapolis. 9/16/2008
95. "Overview of Stem Cell Research." Children's Cancer Research Fund, Minneapolis. 9/10/2008
96. "How We Translate Stem Cell Research from Mice to Sick Children." Mini Medical School, Children's Cancer Research Fund, Minneapolis. 7/29/2008
97. "Novel Therapies for Fanconi Anemia." Fanconi Anemia Research Fund Regional Symposium, St Paul. 5/19/2007
98. "Adult Stem Cells." Children's Cancer Research Fund, Minneapolis. 8/22/2006
99. "Healing Injured Tissues with Adult Stem Cells." University Pediatrics Foundation, Minneapolis. 7/10/2005

Peer-reviewed Abstracts at Professional Meetings, Conferences, etc.
‡Oral Presentation, †student co-author

1. ‡Ebens CL, Dimitrov M, Merkle S, Tryon R, Kao R, Srikanthan M, Vercellotti, G, **Tolar J**. Allogeneic hematopoietic cell transplant for dyskeratosis congenita: No radiation needed. Team Telomere Scientific Summit, Couer d'Alene, ID. 2024
2. †Strege C, Miller W, Eide C, Hubbard J, **Tolar J**. Decreasing pre-weaning mortality in a fragile mouse model. 2nd Annual CFANS Research Symposium. St. Paul, MN. 2024

3. †Sawyer K, Miller W, Strege C, Popp C, Eide C, **Tolar J**. Assessing Readability of Public Facing Online Materials on Rare Disorders of Fatty Acid Oxidation. Minnesota Rare Disease Day, Minneapolis, MN. Research Award. 2024
4. †Strege C, Miller W, Popp C, Stone W, Eide C, Bui K, Ebens CL, McGrath J, **Tolar J**. The senolytic fisetin improves lifespan of a hypomorphic mouse model of recessive dystrophic epidermolysis bullosa. Minnesota Rare Disease Day, Minneapolis, MN. 2024
5. ‡Antin J, **Tolar J**, Arai S, Horowitz M, McCarty J, Makamura, Pulsipher M, Kou J, Deeg J, Horowitz M, Eapen M. Allogeneic Transplantation: Long-Term Follow-Up and Disease Recurrence: Long-Term Survival and Survivorship from Clinical Trials and Observations. American Society of Hematology 2023, San Diego, CA. 2023
6. Eapen M, Antin J, **Tolar J**, Arai S, Horwitz M, Kou J, Leifere E, McCarty JM, Nakamura R, Pulsipher MA, Horowitz MM, Deeg HJ. Long-Term Outcomes after Unrelated Marrow Transplantation for Aplastic Anemia with Optimized Cyclophosphamide Dose (BMT CTN 0301). American Society of Hematology 2023, San Diego, CA. Blood (2023) 142 (Supplement 1): 235. https://doi.org/10.1182/blood-2023-178093. 2023
7. †Miller WC, Popp C, Strege C, Stone W, Eide C Bui K, Ebens CL, McGrath J, **Tolar J**. The senolytic flavonoid compound fisetin extends lifespan in murine recessive dystrophic epidermolysis bullosa. International Society of Investigative Dermatology 2023, Tokyo, Japan. 2023
8. Ebens CL, †Riedl JA, Riddle MJ, Eide C, Osborn MJ, **Tolar J**. Developing autologous gene-corrected epidermal skin grafts for recessive dystrophic epidermolysis bullosa wounds. University of Minnesota CTSI Poster Session 2022, Minneapolis, MN. 2022
9. Sipe CJ, Kluesner MG, Bingea SP, Lahr WS, Andrew AA, Wang M, Wagner JE, MacMillan ML, Vercelloti GM, **Tolar J**, Osborn MJ, McIvor RS, Webber BR, Moriarity BS. Therapeutic base editing of Fanconi anemia patient mutations in primary cells for autologous gene therapy. American Society of Gene and Cell Therapy (ASGCT) 2022, Washington, DC. 2022
10. Mutreja I, Twaroski K, Bechtold J, **Tolar J**, Forsberg J, Aparicio C. Human iMSCs-laden photocurable hydrogel for improved durability of the skin/implant interface - An in vitro and ex vivo analysis. Military Health System Research Symposium (MHSRS) 2022, Kissimmee, FL. 2022
11. †Bui KG, Keith A, Ebens C, Bielinsky AK, **Tolar J**. Changes in HMGB1 localization mediate inflammation and genomic stability in RDEB-associated squamous cell carcinoma. Gordon Research Seminar: DNA Damage, Mutation and Cancer, Ventura, CA. 2022
12. Mutreja I, Twaroski K, Bechtold J, **Tolar J**, Forsberg J, Aparicio C. Human iMSCs-laden photocurable hydrogel for improved durability of the skin/implant interface - An in vitro and ex vivo analysis. Orthopaedic Research Society (ORS) 2022 Annual Meeting, Tampa, FL. 2022
13. ‡Seelig D, Evans M, Smith M, O'Sullivan G, **Tolar J**, Whitley C, McIvor R, Braunlin E. Aortic dilation in murine mucopolysaccharidosis type I: A tale of two strains. 2022 WORLD*Symposium*, San Diego, CA. 2022

14. Mutreja I, Forsberg J, Twaroski K, **Tolar J**, Aparicio C. Advancements in Prosthetic and Orthotic Technologies that Facilitate Return to Duty Following Neuromusculoskeletal Injuries - iMSCs-laden adhesive polymer matrix for improving soft tissue attachment at skin/implant interface. 2021 Military Health System Research Symposium (MHSRS), Kissimmee, FL. 2021

15. Mutreja I, Twaroski K, Bechtold JE, **Tolar J**, Forsberg J, Aparicio C. Optimization, feasibility and cellular interactions of a human IMSCs-laden photocurable hydrogel for improved durability of the skin/implant interface. 2021 Orthapaedic Research Society Annual Meeting. Virtual. 2021

16. ‡†Riedl J, Twaroski K, Eide C, Ebens C, **Tolar J**. Single cell RNA sequencing analysis of epidermal skin grafts that ameliorate wounds after hematopoietic cell transplantation in recessive dystrophic epidermolysis bullosa. 78th Annual Society for Investigational Dermatology, Scottsdale, AZ. 2020

17. Mutreja I, Twaroski K, Bechtold JE, **Tolar J,** Forsberg JA, Arparicio C. Human iMSC-laden hydrogel scaffold for improving the durability of skin/implant interface. Orthopaedic Research Society 2020, Phoenix, AZ. 2020

18. Kirchner VK, Twaroski K, Wysoglad K, Algoo J, LeCluyse E, Soldatow V, Song GW, Tak E, Chen W, Lee SG, Pruett TL, **Tolar J**. Step-By-Step Protocol For Generation Of Human Induced Pluripotent Stem Cells (h-iPSCs) Using Hepatic Non-parenchymal Cells (NPCs). International Society for Stem Cell Research/Korean Society for Stem Cell Research International Symposium, Seoul, Korea.l 2019

19. Osborn MJ, Newby GA, Knipping F, McElroy A, Riddle M, Nielsen S, Blazar BR, Liu DR, **Tolar J**. CRISPR/Cas9-Base Editing Mediated Correction for Recessive Dystrophic Epidermolysis Bullosa. 22nd Annual Meeting of the American Society of Gene and Cell Therapy (ASCGT), Washington, DC. Mol Ther. 2019:27(4, Suppl 1)47. 2019

20. ǂEbens CL, Braun J, Lilja G, Preusser S, Tekmen-Clark M, Keene D, Riddle M, **Tolar J**. Successful allogeneic epidermal grafting of chronic recessive dystrophic epidermolysis bullosa wounds from hematopoietic cell donors in the outpatient setting. 77th Annual Society of Investigative Dermatology Meeting, Chicago, IL. J Invest Dermatol. 2019:139(5, Suppl)S99. 2019

21. Mutreja I, Dey D, Twaroski K, Belkhodja M, Bechtold JE, **Tolar J**, Forsberg J, Davis T, Aparicio C. Stem cell sources for regenerative strategies to improve durability of skin/implant interfaces (#2039). 2019 ICORS/CORS/COA Meeting, Montreal, Canada. 2019

22. Ebens CL, McGrath JA, Tamai K, Hovnanian A, Wagner JE, Riddle M, Keene DR, DeFor TE, Tryon R, Chen M, Woodley DT, Hook K,**Tolar J**. Reduced Intensity Conditioned Bone Marrow Transplant with Post-Transplant Cyclophosphamide and Donor-Derived Mesenchymal Stromal Cell Infusions for Recessive Dystrophic Epidermolysis Bullosa. 60th Annual Meeting of the American Society of Hematology (ASH), San Diego, CA. Blood. 2018:132(Suppl 1)2165. https://doi.org/10.1182/blood-2018-99-113035. 2018

23. †Pickett-Leonard MD, Twaroski K, South AP, **Tolar J**. Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa. International Investigative Dermatology (IID) Meeting, Orlando, FL. J Invest Dermatol. 2018:138(5, Suppl S)S38. 2018

24. Tryon R, **Tolar J**, Bower M, Thayagarajan B, Ebens C. Variants in the *ITGA6* gene can result in the non-lethal form of junctional epidermolysis bullosa with pyloric atresia (JEB-PA). 2019 Annual Clinical Genetics Meeting. 2018

25. Lu HC, Rousseaux M, Tschumperlin T, Lackey E, Bondar V, Wan YW, Tan QM, Adamski C, Friedrich J, Twaroski K, Chen WL, **Tolar J**, Henzler C, Sharma A, Bajic A, Lin T, Duvick L, Sillitoe R, Zoghbi H, Orr H. Gain-of-function of the ATXN1-CIC co-repressor complex drives the cerebellar pathology in spinocerebellar ataxia type 1 (SCA1). 2018 Annual Meeting of the American-Association-of-Neuropathologists, Louisville, KY. J Neuropathol Exper Neurol. 2018:77(6)512. 2018
26. ‡Zhang H, †Lee C, Li Z, Garbe J, Eide C, Petegrosso R, Kuang R, **Tolar J**. A multitask learning approach for clustering multiple single cell RNA-seq datasets. International Society for Computational Biology, Chicago, IL. 2018
27. †Pickett-Leonard M, Twaroski K, Chen W, Riedl R, South A, **Tolar J**. A subset of cancer cells in recessive dystrophic epidermolysis bullosa tumors express pluripotency and cancer stem cell markers. International Society for Stem Cell Research Conference, Melbourne, Australia. 2018
28. ‡Lee CAA†, Seo H, Armien A, Bates F, **Tolar J**, Azarin S. Modeling and rescue of defective blood-brain barrier function of induced brain microvascular endothelial cells from childhood cerebral adrenoleukodystrophy patients. International Society for Stem Cell Research Conference, Melbourne, Australia. 2018
29. ‡Thompson EL, **Tolar J**, Hendrickson EA. FANCN patient mutations are hypomorphic and rescue catastrophic genomic instability. Rare Disease Day, Minneapolis, MN. 2018
30. ‡Eisengart J, Miller W, Kaizer A, Rudser K, King K, Ziegler R, Pierpont E, Whitley C, Raymond G, **Tolar J**, Lund T, Shapiro E, Orchard P. Neurocognitive outcomes of intrathecal enzyme replacement therapy and transplant in Hurler syndrome. WORLD Symposium. 2018
31. Lund TC, Miller WP, Raymond GV, **Tolar J**, Lowe D, Lee G, Orchard PJ. Post-transplant iduronidase attenuates skeletal disease in MPS IH. We're Organizing Research for Lysosomal Diseases (WORLD) Symposium, San Diego, CA. 2018
32. ‡Lee CAA†, Zhang H, Li Z, Garbe JR, Eide CR, Kuang R, **Tolar J**. Multitask Clustering across Multiple Single-cell RNA-seq datasets Identifies Cell Sub-populations and Markers in Recessive Dystrophic Epidermolysis Bullosa Fibroblasts. Montagna Symposium on the Biology of Skin. 2017
33. Zhang H, Lee CAA, Li Z, Garbe JR, Eide CR, ‡Kuang R, **Tolar J**. Multitask Clustering across Multiple Single-cell RNA-seq datasets Identifies Cell Sub-populations and Markers in Recessive Dystrophic Epidermolysis Bullosa. RSG-DRAAM 2017 Conference. 2017
34. ‡Seo HS†, Lee CAA, Bates FS, **Tolar J**, Azarin SM. Modeling diseased BBB through directed differentiation of patient-derived iPSCs into brain microvascular endothelial cells. 2017 American Institute of Chemical Engineers Annual Meeting. 2017
35. ‡Thompson B†, **Tolar J**, Hendrickson E. FANCN patient mutations are hypomorphic and rescue catastrophic genomic instability. 29th Annual Fanconi Anemia Research Fund Scientific Symposium. 2017
36. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene DR, Riddle M, Hook K, Hordinsky M, Marinkovich MP, Woodley DT, Chen M, Tryon R, DeFor TE, Ebens CL, Tamai K, Hovnanian A, Blazer BR, Wagner JE. Type VII collagen (C7) expression and chimerism after bone marrow/cord blood transplantation (BMCBT) for severe generalized recessive dystrophic epidermolysis bullosa (RDEB). 2017 SID Annual Meeting. 2017
37. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene DR, Riddle M, Hook K, Hordinsky M, Marinkovich MP, Woodley DT, Chen M, Tryon R, DeFor TE, Ebens CL, Tamai K, Hovnanian A, Blazer BR, Wagner JE. Type VII collagen (C7) expression and chimerism after bone marrow/cord blood transplantation (BMCBT) for severe generalized recessive dystrophic epidermolysis bullosa (RDEB). 2017 Medical Dermatological Society Meeting. 2017

38. **Tolar J**, McGrath JA, Osborn MJ, Keene DR, Riddle M, ‡Hook K, Hordinsky M, Marinkovich MP, Tryon R, DeFor TE, Ebens CL, Tamai K, Hovnanian A, Blazer BR, Wagner JE. Bone marrow/cord blood transplantation (BMCBT) ameliorates symptoms in some, but not all, subtypes of severe generalized junctional epidermolysis bullosa (JEB). 2017 SID Annual Meeting. 2017

39. ‡Thompson B†, **Tolar J**, Hendrickson EA. FANCN hypomorphic mutation retains BRCA1 binding domain. 2016 ASH Annual Meeting & Exposition 2016

40. ‡Thompson B†, **Tolar J**, Hendrickson EA. FANCN hypomorphic mutation retains BRCA1 binding domain. 2016 Fanconi Anemia Research Symposium. 2016

41. Jung J, ‡Lin W-H, **Tolar J**, Ogle B. Hydrogel platform for modeling the dermoepidermal junction *in vitro*. Biomedical Engineering Society 2016 Annual Meeting. 2016

42. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene D, Hook K, Hordinsky MK, Marinkovich P, Woodley D, et al. Skin engraftment and type VII collagen (C7) expression after allogeneic hematopoietic cell transplantation (HCT) for generalized severe recessive dystrophic epidermolysis bullosa (RDEB). 2016 Society for Investigative Dermatology Annual Meeting. J Invest Dermatol. 2016;136(5):S46. 2016

43. ‡Osborn M*, Webber B†*, McElroy A, Defeo A, Patel D, Lees C, McElmurry R, Riddle M, Blazar B, **Tolar J**. *Equal contributors. CRISPR/Cas9-based genetic correction for recessive dystrophic epidermolysis bullosa (RDEB). 2016 Society for Investigative Dermatology Annual Meeting. J Invest Dermatol. 2016;136(5):S66. 2016

44. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene D, Hook K, Hordinsky MK, Marinkovich P, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar B, Wagner JA. Skin engraftment and type VII collagen (C7) expression after allogeneic hematopoietic cell transplantation (HCT) for generalized severe recessive dystrophic epidermolysis bullosa (RDEB). 2016 Society for Investigative Dermatology Annual Meeting. J Invest Dermatol, 2016:136(5):S46. 2016

45. Webber B, O'Connor K, McElmurry RT, Durgin EN, Riddle MJ, Osborn MJ, **Tolar J**. Efficient CRISPR/Cas9-mediated knockout of *Col7a1* in NOD/SCID IL2Rgamma-null mice by pro-nuclear injection. 2016 Society for Investigative Dermatology Annual Meeting. J Invest Dermatol, 2016:136(5);S74. 2016

46. †Vanden Oever MJ, Muldoon D, **Tolar J**. miR-29 Regulates type VII collagen in recessive dystrophic epidermolysis bullosa. 2016 Society for Investigative Dermatology Meeting. J Invest Dermatol, 2016:138(5);S38. 2016

47. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene DR, Hook K, Hordinsky M, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Mucocutaneous engraftment and type VII collagen (C7) replacement after allogeneic hematopoietic cell transplantation (HCT) in patients with recessive dystrophic epidermolysis bullosa (RDEB). 57th ASH Annual Meeting and Exposition. Blood. 2015:126(23);S402. 2015

48. ‡Miller JS, Felice M, McElmurry R, McCullar V, Zhou X, **Tolar J**, Schmohl JU, Panoskaltsis-Mortari A, Zhang B, Taras E, Verneris MR, Cooley S, Weisdorf DJ, Blazar BR, Vallera D. Trispecific Killer Engagers (TriKEs) that contain IL-15 to make NK cells antigen specific and to sustain their persistence and expansion. 57th ASH Annual Meeting and Exposition. Blood. 2015;126(23):S232. 2015

49. ‡Osborn MJ, Webber BR†, Knipping F, Lonetree C, DeFeo A, McElroy A, Starker C, Gabriel R, Merkel S, Hippen KL, Voytas D, von Kalle C, Schmidt M, Miller JS, Jarjour J, Astrakhan A, Scharenberg AM, **Tolar J**, Blazar BR. Megatal, CRISPR/Cas9, and TALEN T-cell receptor gene editing. 57th ASH Annual Meeting and Exposition. Blood. 2015;126(23):S2045. 2015

50. ‡**Tolar J**, McGrath J, Osborn MJ, Keene DR, Hook K, Hordinsky M, Woodley DT, Chen M, Hovnanian A, Tamai K, Blazar B, Wagner J. Hematopoietic cell transplantation (HCT) for recessive dystrophic epidermolysis bullosa (RDEB): Reduced intensity conditioning (RIC) has a better outcome than myeloablative conditioning (MAC). 74th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2015;135:S70. 2015

51. ‡Petrof G, Lwin SM, Martinez-Quiepo M, Abdul-Wahab A, Tso S, Mellerio J, Slapen-Cortenbach I, Boelens JJ, **Tolar J**, Veys P, Kadiyirire T, Ofuya M, Peacock JL, Martinez A, McGrath J. Allogeneic mesenchymal stromal cell therapy for children with recessive dystrophic epidermolysis bullosa: An open-label, phase 1, single-centre trial. 74th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2015;135:S71. 2015

52. ‡Watt S, Dayal J, Wright S, Pourreyron C, McMillan J, Riddle M, McLean I, Leigh I, McGrath J, Salas-Alanis J, **Tolar J**, South AP. Lysyl hydroxylase 3 localizes to epidermal basement membrane and is reduced in patients with recessive dystrophic epidermolysis bullosa. 74th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2015;135:S83. 2015

53. ‡Pope E, Bruckner A, Lara-Corrales I, **Tolar J**, Lucky A, Feinstein. Validation of iscorEB (instrument for scoring clinical outcome for research of Epidermolysis Bullosa. 2015 debra International Research Symposium. 2015

54. ‡Pope E, Bruckner A, Lara-Corrales I, **Tolar J**, Lucky A, Feinstein J. Validation of iscorEB (instrument for scoring clinical outcome for research of Epidermolysis Bullosa). 2015 EB Research Symposium 2015

55. ‡Decanini A, Tokarev J, Eisengart J, Shapiro E, Summers CG, Orchard P, **Tolar J**, Bothun ED. Ocular outcomes of combination enzyme replacement therapy with hematopoietic cell transplantation in Hurler syndrome. Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO). Invest Ophthalmol Vis Sci. 2015;56(7):5826. 2015

56. ‡Ross JA, **Tolar J**, Spector LG, Defor TE, Lund TC, Weisdorf DJ, Hooten AJ, Thyagarajan B, Langer E, Gleason MK, Wagner JE, Robien K, Verneris MR. Mitochondrial haplotype as an independent predictor of outcomes following allogeneic hematopoietic cell transplantation (HCT). 56th ASH Annual Meeting and Exposition. Blood. 2014;124(21):683. 2014

57. ‡Anderlini P, Wu J, Deeg HJ, Gersten I, Ewell M, **Tolar J**, Antin JH, Arai S, Horwitz ME, McCarty JM, Nakamura R, Pulsipher MA, Adams RH, Leifer E, Carter SL, DiFronzo NL, Horowitz MM, Confer DL, Eapen M. Optimized cyclophosphamide (CY) dosing in combination with fludarabine, TBI and ATG as conditioning for unrelated donor bone marrow transplantation (BMT) in severe aplastic anemia (SAA): A Phase I/II study from the Blood and Marrow Transplant Clinical Trials Network (BMT CTN). 56th ASH Annual Meeting and Exposition. Blood. 2014;124(2):541. 2014

58. ‡Belur L, Nan ZH, Buckvold M, Karlen A, Kitto K, Podetz-Pedersen KM, Fairbanks C, Hanson L, **Tolar J,** Kozarsky K, Frey WH, Low WC, McIvor RS. High level expression of human iduronidase throughout the brain in a murine model of mucopolysaccharidosis type I after non-invasive AAV-mediated gene deliver to the CNS. 17th Annual Meeting of the American Society of Gene and Cell Therapy (ASCGT). Mol Ther. 2014;22:S236. 2014

59. ‡Kozarsky K, Nan ZH, Buckvold M, Karlen A, Kitto K, Podetz-Pedersen KM, Fairbanks C, Hanson LR, Orhcard P, **Tolar J**, Frey WH, Low WC, McIvor RS, Belur L. High level expression of human iduronidase throughout the brain in a murine model of mucopolysaccharidosis type I (MSP I) after non-invasive AAV-mediated gene delivery to the CNS. ESGCT and NVGCT Collaborative Congress. Hum Gene Ther. 2014;25(11):A42. 2014

60. ‡Long-Boyle J, Sambol N, Dvorak CC, Cowan MJ, Lee S, Huang LS, Horn B, Stricherz M, **Tolar J**, Orchard P, Jacobson P, Aweeka F. Plasma and intracellular population pharmacokinetic analysis of fludarabine in pediatric allogeneic hematopoietic cell transplant (alloHCT) recipients. 2014 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2014;20(2):S30. 2014

61. ‡Aldenhoven M, Orchard P, Kurtzberg J, Wynn R, O'Meara A, Veys P, Fischer A, Valayannopoulos V, Neven B, Rovelli A, Prasad VK, **Tolar J**, Shapiro E, Jones S, Parini R, Renard M, Bordon V, Poe M, de Koning T, Wraith E, Escolar M, Boelens, JJ. Predictors of long-term clinical outcome in Hurler syndrome patients after successful hematopoietic cell transplantation: An international study. 2014 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2014;20(2):S78-9. 2014

62. ‡Lund TC, Miller W, Polgreen L, Baso L, Raymond G, **Tolar J**, Orchard P. Improvement in biomarkers after intrathecal iduronidase for children with MPS IH. Society of Inherited Metabolic Disorders Annual Meeting 2014. Mol Genet Metabol. 2014;111(2):S74. 2014

63. ‡**Tolar J,** McGrath JA, Keene DR, Hook K, Osborn MJ, Hordinsky M, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Systemic cell therapy for epidermolysis bullosa: repair of skin extracellular matrix. ESGCT and NVGCT Collaborative Congress Hum Gene Ther. 2013;24(12):A16-A17. 2013

64. ‡Orchard P, Cartier N, Hacein-Bey-Abina S, Kurtzberg J, Escolar M, **Tolar J**, Baruchel A, Dalle JH, Michel G, Blanche S, Bartholoma C, Schmidt M, Bougneres P, Von Kalle C, Cavazzana-Calvo M, Fischer A, Aubourg P. Hematopoietic stem cell gene therapy with lentiviral vector in 4 patients with cerebral X-linked adrenoleukodystrophy: long-term outcome and comparison of efficacy with allogeneic hematopoietic stem cell transplantation. ESGCT and NVGCT Collaborative Congress. Hum Gene Ther. 2013;24(12):A21. 2013

65. ‡**Tolar J**, McGrath JA, Keene DR, Hook P, Osborn MJ, Kavand S, Hordinsky M, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Bone marrow transplantation has better outcomes than umbilical cord blood transplantation in recessive dystrophic epidermolysis bullosa (RDEB). 72nd Annual Society of Investigative Dermatology Meeting. J Invest Dermatol. 2013;133:S178. 2013

66. ‡**Tolar J**, McGrath JA, Osborn MJ, Hook KP, Keene DR, Hordinsky MK, Blazar BR, Wagner JE. Bone marrow is the preferred graft for allogeneic hematopoietic stem cell transplantation in severe epidermolysis bullosa. 2013 BMT Tandem Meetings. *Featured in Best Pediatric Abstracts.* Biol Blood Marrow Transplant. 2013;19(2):S166. 2013

67. ‡**Tolar J**, McGrath JA, Osborn MJ, Hook KP, Keene DR, Hordinsky MK, Blazar BR, Wagner JE. Allogeneic hematopoietic cell transplantation for severe epidermolysis bullosa: impact of conditioning regimen and stem cell source on outcomes. 54th ASH Annual Meeting and Exposition. Blood. 2012;120(21):965. 2012

68. ‡**Tolar J**. Optimal xenogeneic adoptive transfer of human NK cells: fresh NK cells and IL-15 administration are superior to frozen NK cells and IL-2. 54th ASH Annual Meeting and Exposition. Blood. 2012;120(21):346. 2012

69. ‡**Tolar J**, McGrath JA, Keene DR, Hordinsky M, Osborn MJ, Riddle MJ, Bertin AJ, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Hematopoietic and mesenchymal stem cell transplantation for recessive dystrophic and junction epidermolysis bullosa. 72nd Society for Investigative Dermatology Meeting. J Invest Dermatol. 2012;132:S91. 2012

70. ‡**Tolar J**, McGrath JA, Keene DR, Hook K, Osborn MJ, Riddle MJ, Kavand S, Hordinsky M, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Hematopoietic and mesenchymal cell transplantation after myeloablative and non-myeloablative conditioning for recessive dystrophic and junctional epidermolysis bullosa (RDEB, JEB). Conjoint 3rd Australasian Society for Dermatology Wound & Tissue Repair Society and 9th Australasian Society for Dermatology Research Conference 2012. Wound Repair Regen. 2012;20(5):A67 2012

71. ‡**Tolar J**, McGrath A, Keene DR, Hordinsky M, Osborn MJ, Riddle MJ, Bertin A, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Hematopoietic and mesenchymal stem cell transplantation for recessive dystrophic and junctional epidermolysis bullosa. 70th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2011;131:S90. 2011

72. ‡**Tolar J**, Osborn MJ, Maeder ML, Xia L, Eide CR, Lees CJ, Lund TC, Williams DA, Wagner JE, Joung JK, Blazar BR. Gene editing of induced pluripotent stem cells from patients with Fanconi anemia (FA). Fanconi Anemia Research Fund Scientific Symposium 2010. 2010

73. ‡Wagner JE, Ishida-Yamamoto A, McGrath JA, Keene D, Hordinsky M, Blazar BR*, **Tolar J*** (*co-last authors). Adult stem cells for treatment of Recessive Dystrophic Epidermolysis Bullosa (RDEB). One of five abstracts selected for presentation at the plenary session.68th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2009;129:S55. 2009

74. ‡Wagner JE, Ishida-Yamamoto A, McGrath JA, Keene D, Hordinsky M, Blazar BR*, **Tolar J*** (*co-last authors). Human adult marrow stem cells ameliorate the clinical phenotype of recessive dystrophic epidermolysis bullosa (RDEB), a lethal collagen matrix skin disease. 38th Annual International Society of Stem Cell Research Meeting 2009. 2009

75. ‡Lund TC†, Kobs A, Blazar BR, **Tolar J**. Robust mesenchymal stem cells for clinical applications can be derived from donors of any age. International Conference on Mesenchymal and Non-Hematopoietic Stem Cells 2009. 2009

76. ‡**Tolar J**, Park IH, Xia L, Osborn M, McElmurry RT, Orchard PJ, Daley GQ, Blazar BR. Patient-specific induced pluripotent stem cells in Hurler syndrome. 50th Annual American Society of Hematology Meeting. Blood. 2008;112(11):149. 2008

77. ‡**Tolar J**, Charnas L, Orchard PJ. Antioxidant neuroprotection with hematopoietic cell transplantation in cerebral adrenoleukodystrophy. WORLD Symposium of the Lysosomal Disease Network 2008. Mol Genet Metab. 2008;93(2):S40. 2008

78. ‡**Tolar J**, McElmurry RT, Bazzi H, Xia L, Uitto J, Ishida-Yamamoto A, Christiano AM, Blazar BR. Correction of the skin defect in murine recessive dystrophic epidermolysis bullosa by bone marrow derived SLAM family receptor enriched cells. 49th Annual American Society of Hematology Meeting. Blood, 2007;110(11):134A-5A. 2007

79. ‡**Tolar J**, Orchard PJ, Key NS, Blazar BR. Glycosaminoglycans as anticoagulants in mucopolysaccharidosis type I (MPS I). 49th Annual American Society of Hematology. Blood. 2007;110(11):55B. 2007

80. ‡**Tolar J**, Braunlin E, Mansoor AM, McElmurry RT, Lees CJ, Xia L, Zhang J, Blazar BR. Adult stem cells and host immune response synergize to stimulate angiogenesis after myocardial ischemia. Scientific Session of the American Heart Association. Circulation. 2007;116(16s):II_132. 2007

81. ‡**Tolar J**, Zayed H, Xia L, Yerich A, Yant SR, Kay MA, Puttaraju M, Mansfield SG, Wiest D, McIvor RS, Blazar BR. Dual system of RNA trans-splicing element and *Sleeping Beauty* transposon corrects DNA protein kinase mutation in severe combined immune deficiency. 12th Annual Congress of the European Hematology Association. Haematologica. 2007;92:154. 2007

82. ‡Orchard PJ, Eapen M, **Tolar J**, Horwitz E, Veys P, Fasth F. Hematopoietic stem cell transplantation for osteopetrosis. 12th Annual Congress of the European Hematology Association. Haematologica. 2007;92:133. 2007

83. ‡**Tolar J**, Panoskaltsis-Mortari A, Yerich AK, McElmurry RT, Hollander GA, Kren BT, Steer CJ, Blazar BR: Induction of endogenous repair mechanisms by single-stranded DNA oligonucleotide therapy for correction of the DNA-PK mutation in murine severe combined immune deficiency. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):138A. 2006

84. ‡**Tolar J**, MacMillan M, Hirsch B, Eide C, Levran O, Hannenberg H, Blazar B, Auerback AD, Wagner J. Hematopoietic stem cell mosaicism in Fanconi anemia. Fanconi Anemia Research Fund Scientific Symposium 2006. 2006

85. ‡**Tolar J**, Wang X, Braunlin E, McElmurry RT, Nakamura Y, Bell S, Xia L, Zhang J, Panoskaltsis-Mortari A, Zhang JY, Blazar BR. Host immune response is critical for the beneficial effect of adult stem cells after myocardial ischemia. Scientific Session of the American Heart Association Meeting. Circulation. 2006;114(18S):170. 2006

86. ‡**Tolar J**, Braunlin E, Berry J, McElmurry R, Bell S, Clarke L, Verfaillie C, Blazar B. Multipotent adult progenitor cells improve aortic insufficiency in murine model of Hurler syndrome. Child Health Research Centers Meeting 2005. 2005

87. ‡**Tolar J**, Yerich AK, Eide C, Wagner JE, Kacett PB, Grompe M, Blazar BR. Non-viral transfer of human FA-C gene into neonatal Fanconi anemia C mice. Fanconi Anemia Research Fund Scientific Symposium 2005. 2005

88. ‡**Tolar J**, Bell S, McElmurry R, Xia L, McIvor SR, Yant SR, Kay MA, Contag CH, Verfaillie CM, Blazar BR. Real-time in vivo biodistribution of multipotent adult progenitor cells (MAPC): role of the immune system in MAPC resistance in non-transplanted and bone marrow transplanted mice. 46th Annual American Society of Hematology Meeting. Blood. 2004;104(11):147A-148A. 2004

89. ‡**Tolar J**, Clarke L, Jiang Y, McElmurry R, Vengco I, Yerich A, Peters C, Verfaillie CM, Blazar B. Multipotent adult progenitor cells reduce glycosaminoglycan accumulation in a murine model of Hurler Syndrome. Child Health Research Center Meeting 2004. 2004

90. ‡**Tolar J**, Clarke LA, Jiang Y, McElmurry RT, Vengco I, Yerich AK, Peters C, Verfaillie CM, Blazar BR. Multipotent adult progenitor cells (MAPCs) reduce glycosaminoglycan accumulation in murine model of Hurler Syndrome, MPS 1H. WORLD Symposium of the Lysosomal Disease Network 2004. 2004

91. ‡**Tolar J**, Jiang Y, McElmurry R, Jahagirdar B, Blackstad M, Verfaillie CM, Blazar BR. The in utero transfer of murine multipotent adult progenitor cells (MAPCs) results in brain and liver differentiation.43rd American Society of Hematology Meeting. Blood. 2001;98(11):475A. 2001

92. ‡**Tolar J**, Ostrow R, McGlennen R, Lemke T, Tobolt D, Faras A. Biological characterization of naturally occurring mutations in an oncogenic variant of human papillomavirus type 11. International Papillomavirus Meeting 1996. 1996

‡Poster Presentation, †student co-author

1. Ye Z, Xia L, Sha Y, Wang S, Eide C, Nie Q, **Tolar J**, Sarkar CA. Quantifying cell conversion trajectories. Engineering-Stem Cell Institute Joint Symposium, Minneapolis, MN. 2018

2. ‡Pickett-Leonard M†, Twaroski K, South A, **Tolar J**. Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa. Rare Disease Day, 2018, Minneapolis, MN. 2018

3. ‡Lee CAA†, Vanden Oever M, Riddle MJ, **Tolar J**. Purification of revertant mosaic fibroblasts from a patient with recessive dystrophic epidermolysis bullosa using synthetic microRNA switches. Rare Disease Day, 2018, Minneapolis, MN. 2018

4. ‡Pickett-Leonard M†, Twaroski K, South A, **Tolar J**. Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa. International Investigative Dermatology Conference, Orlando, FL. 2018

5. ‡**Tolar J**, McGrath JA, Osborn MJ, Keene DR, Riddle M, Hook K, Hordinsky M, Marinkovich MP, Tryon R, DeFor TE, Ebens CL, Katsuto T, Hovnanian A, Blazar BR, Wagner JE. Bone marrow/cord blood transplantation (BMCBT) ameliorates symptoms in some, but not all, subtypes of severe generalized junctional epidermolysis bullosa (JEB). Society for Investigative Dermatology, 2017, Portland, OR. 2017

6. ‡Riedl J†, Eide C, Riddle M, Mathews W, Twaroski K, Frank M, **Tolar J**. How is recessive dystrophic epidermolysis bullosa (RDEB) an autoimmune disease? Investigating the immunomodulation properties of ABCB5+ MSCs in the skin. Montagna Symposium on the Biology of Skin, Stevenson, WA. 2017

7. ‡Pickett-Leonard M†, Fuget C, **Tolar J**. Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa. Montagna Symposium on the Biology of Skin, Stevenson, WA. 2017

8. ‡Vanden Oever M†, Muldoon D, Mathews W, **Tolar J**. Fludarabine modulates expression of type VII collagen during hematopoietic stem cell transplantation for recessive dystrophic epidermolysis bullosa. Montagna Symposium on the Biology of Skin, Stevenson, WA. 2017

9. ‡Riedl J†, Eide C, Riddle M, Mathews W, Twaroski K, Frank M, **Tolar J**. How is recessive dystrophic epidermolysis bullosa (RDEB) an autoimmune disease? Investigating the immunomodulation properties of ABCB5+ MSCs in the skin. Genome Writer's Guild Symposium, University of Minnesota, Minneapolis, MN. 2017

10. ‡Patel D, Patel K, **Tolar J**, Blazar BR. High throughput proteome screening platform for HSC. 2017 Regenerative Medicine Minnesota, Mayo Clinic, Rochester, MN. 2017

11. ‡Kramarzova KS, Osborn M, DeFeo A, McElroy A, Slamova M, **Tolar J**. Gene editing in Fanconi Anemia: CRISPR/Cas9-mediated correction of FANCD1 gene in patient primary cells. 2017 American Society of Gene & Cell Annual Meeting. 2017

12. ‡Lee C†, **Tolar J**, Azarin S, Seo H. Path of least resistance: modeling the BBB of patients with x-ald using directed differentiation of human iPSCs into brain microvascular endothelial cells (BMECs). International Society for Stem Cell Research 2017 Annual Meeting. 2017

13. ‡Vanden Oever M†, Muldoon D, **Tolar J**. miR-29 regulates type VII collagen in individuals with recessive dystrophic epidermolysis bullosa (RDEB). Rare Disease Day, University of Minnesota. 2017

14. ‡Pickett-Leonard M†, **Tolar J**. Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa. Rare Disease Day, University of Minnesota. 2017

15. ‡Lee C†, Lees C, Webber B, Silverstein K, Riddle M, Xia L, **Tolar J**. Leopard Spots on the Genome: A Case Study of RDEB Mosaicism. Rare Disease Day, University of Minnesota. 2017

16. ‡Thompson B†, **Tolar J**, Hendrickson EA. Gene therapy for Fanconi anemia using CRISPR/Cas9-mediated gene targeting. Rare Disease Day, University of Minnesota. 2017

17. ‡Woska E†, Twaroski K†, **Tolar, J**. Mechanisms of hematopoietic cell transplantation in recessive dystrophic epidermolysis bullosa patients. 2016 Life Sciences Summer Undergraduate Research Program Poster Symposium. 2016

18. ‡Downs E, Osborn MJ, McGrath JA, Hovnanian A, Tamai K, **Tolar J**, Baldridge A. Gastrointestinal outcomes of recessive dystrophic epidermolysis bullosa after hematopoietic cell transplantation. Digestive Disease Week 2016. 2016

19. ‡Vanden Oever MJ†, Muldoon D†, **Tolar J**. miR-29 regulates type VII collagen in individuals with recessive dystrophic epidermolysis bullosa (RDEB). 75th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2016;136(5):S69. 2016

20. ‡Webber B, O'Connor K, McElmurry RT, Durgin EN, Riddle MJ, Osborn MJ, **Tolar J**. Efficient CRISPR/Cas9-mediated knockout of Col7a1 in NOD/SCID IL2Rgamma-null mice by pro-nuclear injection. 75th Annual Society for Investigative Dermatology Meeting. J Invest Dermatol. 2016;136(5):S74. 2016

21. ‡Anderlini P, Wu J, Deeg HJ, Gersten I, Ewell M, **Tolar J**, Antin J, Arai S, Horwitz M, McCarty J, Nakamura R, Pulsipher M, Adams R, Leifer E, DiFronzo N, Horowitz MH, Confer D, Eapen M, Bone Marrow Transplant Clinical Trials Network. Cyclophosphamide (CY) conditioning in patients with severe aplastic anaemia (SAA) given unrelated marrow transplantation: Final results of a phase 1-2 dose de-escalation study from the Blood and Marrow Transplant Clinical Trials Network (BMT CTN 0301). 42nd Annual Meeting of the European Society for Blood and Marrow Transplantation. Bone Marrow Transplant. 2016;51(S1):S492. 2016

22. ‡Lee C†, Azarin S, **Tolar J**. Modeling the blood-brain barrier of adrenoleukodystrophy (X-ALD) patients using directed differentiation of human iPSCs into brain microvascular endothelial cells (BMECS). International Society for Stem Cell Research (ISSCR) Annual Meeting 2016. 2016

23. ‡Long-Boyle J, Ivaturi V, Sambol N, Chan D, Stricherz M, Jennissen C, Orchard P, **Tolar J**, Pai S-Y, Horn B, Cowan MJ, Dvorak CC. Plasma and intracellular pharmacokinetic (PK) analysis of fludarabine in pediatric allogeneic hematopoietic cell transplant (alloHCT) recipients. 2016 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2016;22(3):S253. 2016

24. ‡Mallhi K, Ebens CL, **Tolar J**, Miller WP, Orchard PJ, Lund TC. Second allogeneic hematopoietic cell transplant for graft failure in non-malignant patients: high rate of engraftment with low-dose busulfan, fludarabine, low-dose total body irradiation conditioning. 2016 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2016;22(3):S253-4. 2016

25. ‡Osborn MJ, Gabriel R, Webber BR†, DeFeo AP, McElroy AN, Jarjour J, Starker CG, Wagner JE, Joung JK, Voytas DF, von Kalle C, Schmidt M, Blazar BR, Sharma V, Ahn MJ, Miller TJ and **Tolar J.** CRISPR/Cas9 as a promising gene editing tool for Fanconi anemia treatment. 2nd CRISPR Congress, 2016. 2016

26. ‡Downs E, Osborn MJ, McGrath JA, Hovnanian A, Katsuto T, Wagner J, **Tolar J**, Baldridge AD. Gastrointestinal outcomes of recessive dystrophic epidermolysis bullosa after hematopoietic cell transplantation. Digestive Disease Week 2016. Gastroenterology. 2016;150(4):S682. 2016

27. ‡Lee C†, Lees C, Webber B, Silverstein K, Riddle M, Xia L, **Tolar J**. Leopard Spots on the genome: A case study of RDEB mosaicism. 2016 Minnesota Supercomputing Institute Research Exhibition. 2016

28. ‡Biewen C, Smith AR, **Tolar J**, Miller WP. Outcomes after donor lymphocyte infusion for insufficient donor chimerism following hematopoietic cell transplantation for non-malignant disorders. 57th Annual ASH Meeting and Exposition. Blood. 2015;126(23):S1969. 2015

29. ‡Lund TC, Leigel J, Orchard P, Cao Q, **Tolar J**, Brunstein CG, Wagner JE, Verneris MR, Weisdorf DJ. Second allogeneic hematopoietic cell transplantation for graft failure: Poorer outcomes for neutropenic graft failure. 2015 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2015;21(S2):S166-7. 2015

30. ‡Thompson E†, **Tolar J**, Hendrickson EA. Gene therapy for FANCN using CRISPR/Cas9-mediated gene targeting. Annual Fanconi Anemia Research Fund Scientific Symposium 2015. 2015

31. ‡Vanden Oever M†, Hedstrom C†, **Tolar J**. Chemotherapy used in conditioning regimen for hematopoietic stem cell transplantation in children with recessive dystrophic epidermolysis bullosa (RDEB) alters expression of type VII collagen. 12th Annual Meeting of the International Society for Stem Cell Research (ISSCR) 2015. Stockholm, Sweden. http://files.abstractsonline.com/SUPT/443/3767/ISSCR%202015%20Abstract%20Book.pdf 2015

32. ‡Fioredda F, Korthof L, Iacobelli S, Knol C, Ziagkos D, **Tolar J**, van Biezen A, Socie G, Veys P, Aljurf M, Or R, de la Fuente J, Bacigalupo A, Fisher A, Fagioli F, Codina JSD, Zecca M, Ghavamzadeh A, O'Brien T, Smith O, Dufour C. Preliminary data on the outcome of bone marrow transplantation in congenital diskeratosis. An analysis from the European Group for Bone Marrow Transplantation (EBMT). 20th Congress of European Hematology Association. Haematologica. 2015;100(S1):S74. 2015

33. ‡Fioredda F, Korthol L, Iacobelli S, Knol C, Ziagkos D, **Tolar J**, van Biezen A, Ziagkos D, Velken JH, Socié G, Veys P, Aljurf M, Or R, de la Fuente J, Bacigalupo A, Fisher A, Fagioli F, Codina JSD, Zecca M, Ghavamzadeh A, O'Brien T, Smith O, Dufour C. Outcome of bone marrow transplantation in diskeratosis congenita: Preliminary data from the European Group for Bone Marrow Transplantation. 41st Annual Meeting of the European Society for Blood and Marrow Transplantation. Bone Marrow Transplant. 2015;50:S100. 2015

34. ‡Knipping F, Petri K, Ruggiero E, Osborn MJ, **Tolar J**, von Kalle C, Schmidt M, Gabriel R. TCR modification by highly specific TALEN and CRISPR. Collaborative Congress of the European Society of Gene and Cell Therapy (ESGCT) and Finnish Society of Gene Therapy (FSGT) 2015. Hum Gene Ther. 2015;26(10):A54-5. 2015

35. ‡Knipping F, Petri K, Ruggiero E, Osborn MJ, **Tolar J**, von Kalle C, Schmidt M, Gabriel R. Modification of TCR specificity by TALEN and CRISPR. 18th Annual Meeting of the American Society of Gene and Cell Therapy (ASGCT) 2015. Mol Ther. 2015;23:S224-5. 2015

36. ‡Webber BR†, **Tolar J**, Kyba M, Blazar BR. Targeted single copy *Runx1* reporter lines for interrogation and enhancement of definitive hematopoiesis from murine pluripotent stem cells. 44th Annual Scientific Meeting of the International Society for Experimental Hematology (ISEH) 2015, Kyoto, Japan. Exper Hematol. 2015;43(9):S100. 2015

37. ‡Caballero León PG†, **Tolar J**. The role of matrix metalloproteinases in the outcome of bone marrow transplant for junctional epidermolysis bullosa. 15th Annual Biomedical Research Conference for Minority Students (ABRCMS) 2015. 2015

38. ‡Lim SK, Lai RC, Yeo R, Tan SS, Choo A, **Tolar J**. Mesenchymal stem cell EVs modulate cell adhesion homeostasis through its proteome. International Society for Extracellular Vesicles 2015. 2015

39. ‡Sajic D†, Hook K, **Tolar J**. Toxic epidermal necrolysis (TEN) in recessive dystrophic epidermolysis bullosa status post hematopoietic stem cell transplant. 89th Canadian Dermatology Association Annual Conference 2014. 2014

40. ‡Venhuizen S, Lindborg B, Haider K, Ulrich C, Vegoe A, Subramaniam S, Brekke JH, Dutton J, **Tolar J,** O'Brien TD. Effects of vitronectin on neural differentiation and proliferation of human iPSC's in 3D cell culture. Cornell University 25th Annual Merial-NIH Veterinary Scholars Symposium 2014. 2014

41. ‡Xia L, Keirstead S, Eide C, **Tolar J**. Biopacemaker cells and 2-dimensional cardiac tissue sheet derived from human induced pluripotent stem cells. Heart Rhythm 2014. Featured poster. 2014

42. ‡Modiano J, Lindborg B, Lewellen M, McElmurry R, **Tolar J**, Zamora E, Schaack J, Bellgrau D, O'Brien T. Mesenchym stem cells in the tumor immunosuppressive barrier. Keystone Symposia 2013. 2013

43. ‡**Tolar J,** McGrath JA, Keene DR, Hook K, Osborn MJ, Kavand S, Hordinsky M, Woodley D, Chen M, Hovnanian A, Tamai K, Blazar BR, Wagner JE. Bone marrow transplantation has better outcomes than umbilical cord blood transplantation in recessive dystrophic epidermolysis bullosa (RDEB). Minnesota Dermatological Society Annual Meeting 2013. 2013

44. ‡Braunlin E, Miller WP, **Tolar J,** Whitley CB, Orchard P. Cardiac findings in untreated infants <1 year of age with severe mucopolysaccharidosis (MPS) I. Lysosomal Disease Network's WORLD Symposium 2013. Mol Genet Metabol. 2013;108(2):S26. 2013

45. ‡Cooksley RD, Ahmed A, Shapiro E, Orchard P, **Tolar J**, Whitley CB. Genotyping analysis available for patients after hematopoietic cell transplantation for multiple types of lysosomal diseases. Lysosomal Disease Network's WORLD Symposium 2013. Mol Genet Metabol. 2013;108(2):S31. 2013

46. ‡Orchard P, Cartier N, Hacein-Bey-Abin S, Kurtzberg J, Escolar M, **Tolar J**, Baruchel A, Dalle JH, Michel G, Blanche S, Bartholoma C, Schmidt M, Bougneres P, van Kalle C, Cavazzana-Calvo M, Fischer A, Aubourg P. Hematopoietic stem cell gene therapy with lentiviral vector in 4 patients with cerebral x-linked adrenoleukodystrophy: Long-term outcome and comparison of efficacy with allogeneic hematopoietic stem cell transplantation. 16th Annual American Society of Cell and Gene Therapy. Mol Ther. 2013;21(1S):S25-6. 2013

47. ‡Osborn MJ, Starker CG, McElroy AN, Webber BR†, Riddle MJ, Xia L, DeFeo AP, Gabriel R, Schmidt M, von Kalle C, Carlson DF, Maeder ML, Joung JK, Wagner JE, Voytas DF, Blazar BR, **Tolar J**. TALEN-based individualized medicine for epidermolysis bullosa. 16th Annual American Society of Cell and Gene Therapy. Mol Ther. 2013;21(9):e38. 2013

48. ‡Osborn MJ, Starker CG, DeFeo AP, Voytas DF, Blazar BR, **Tolar J**. Transcription activator-like effector nuclease-based genome editing for mucopolysaccharidosis Type I. 16th Annual American Society of Cell and Gene Therapy. Mol Ther. 2013;21:S224. 2013

49. ‡Felices M, Lenvik T, Ankarlo D, Curtsinger J, **Tolar J,** Blazar BR, Anderson S, Miller JS. Education and cytokine receptor balance play a critical role in the long term survival of the most differentiated natural killer (NK) cells. 54th ASH Annual Meeting and Exposition. Blood. 2012;120(21):2148. 2012

50. ‡Anderlini P, **Tolar J,** Deeg H, Arai S, Horwitz M, Antin J, McCarty J, Adams R, Ewell M, Leifer E, Gersten I, Carter S, Horowitz M, Confer D, Nakamura R, Pulsipher M, DiFronzo N, Eapen M. Fludarabine-based conditioning for allogeneic marrow transplantation from unrelated donors in severe aplastic anaemia: serious and unexpected adverse events in pre-defined cyclophosphamide dose levels. 38th Annual European Society for Blood and Marrow Trnasplantation Meeting. Bone Marrow Transplant. 2012;47(S1):S219-S220. 2012

51. ‡Lund TC, Verneris MR, **Tolar J**, Cao Q, Weisdorf DJ, Wagner JE, Brunstein CG. Encouraging survival for patients who had a second umbilical cord blood transplant for graft failure. 2012 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2012,18(2):S333-S334. 2012

52. ‡Cooksley RD, Shapiro E, Orchard P, **Tolar J**, Whitley CB. Buccal swab specimens for IDUA genotype analysis for patients after hematopoietic stem cell transplantation. Lysosomal Disease Network's WORLD Symposium 2012. Mol Genet Metabol. 2012;105(2):S25. 2012

53. ‡Osborn MJ, Starker CG, DeFeo AP, Voytas DF, Wagner JE, Blazar BR, **Tolar J**. Transcription activator-like effector nuclease-based genome editing for Fanconi anemia (FA). ESGCT/SFTCG Annual Congress 2012. Hum Gene Ther. 2012;23(10):A109. 2012

54. ‡**Tolar J,** Deeg J, Arai S, Horwitz M, Antin J, McCarty J, Adams R, Eapen M, Ewell M, Leifer E, Gersten I, Carter S, Horowitz M, Nakamura R, Pulsipher M, Murphy E, DiFronzo N, Anderlini P. Fludarabine-based conditioning for allogeneic marrow transplantation from unrelated donors in severe aplastic anemia (SAA): serious and unexpected adverse events in pre-defined cyclophosphamide (CY) dose levels. 53rd Annual American Society of Hematology Meeting 2011. Blood. 2011;118(21):3009. 2011

55. ‡Korthof ET, Van der Zalm J, Raphael MF, Bresters D, **Tolar J**, Aljurf M, Veys P, Oneto R, Bacigalupo A, Peters C, Gaspar B, Dufour C, Marsh JCW. Dyskeratosis Congenita: Evaluation of immune status and hematopoietic stem cell transplantation. A literature and EBMT database survey of 75 patients. 53rd Annual American Society of Hematology Meeting 2011. Blood. 2011;118(21):4144. 2011

56. ‡Webber B†, Iacovino M, Kyba M, Blazar BR, **Tolar J**. DNA methylation profile of Runx1 regulatory regions is correlated with transition from primitive to definitive hematopoietic potential *in vitro* and *in vivo*. 53rd Annual American Society of Hematology Meeting. Blood. 2011;118(21):179-180. 2011

57. ‡Bertin AJ, **Tolar J**, Osborn M, Hordinsky M, Wagner JE. Suction blister technique to evaluate skin fragility in children with recessive dystrophic epidermolysis bullosa (RDEB) treated with immunomyeloablative chemotherapy and allogeneic stem cell transplant. Minnesota Dermatological Society Spring Meeting 2011. 2011

58. ‡Kléma J, Holec M, Železný F, **Tolar J**. Comparative evaluation of set-level techniques in microarray classification. 7th International Symposium on Bioinformatics Research and Applications 2011. 2011

59. ‡Korthof ET, Van der Zalm JJJW, Bresters D, Raphael MF, **Tolar J**, Bekassy A, Güngör T, Ayas M, Albert M, Touzot F, Bacigalupo A, Fasth A, Diaz M, Veys P, Cossu F, Yabe M, Oneto R, Peters C, Gaspar H, Dufour C, Marsh J, on behalf of the Working Parties Pediatric Diseases, Inborn Errors and Severe Aplastic Anemia. Dyskeratosis congenita: a literature and database review of immune status and stem cell transplantation data. European Group for Blood and Marrow Transplantation Meeting 2011. Bone Marrow Transplant. 2011;46(S1):S84. 2011

60. ‡Osborn MJ, Maeder ML, Joung JK, Blazar BR, **Tolar J**. Zinc Finger Nuclease Generation for Fanconi Anemia. American Society of Gene and Cell Therapy Annual Meeting 2011. 2011

61. ‡Szabóová A, Kuželka O, Železný F, Morales S, **Tolar J**. Prediction of DNA-binding propensity of proteins by the Ball-Histogram method. 7th International Symposium on Bioinformatics Research and Applications 2011. 2011

62. ‡Szabóová A, Kuželka O, Železný F, **Tolar J**. Prediction of DNA-binding propensity of proteins using distributions of charged amino acids in primary structure. Association for Computing Machinery Conference on Bioinformatics, Computational Biology & Biomedicine 2011. 2011

63. ‡Szabóová A, Kuželka O, Železný F, **Tolar J**. Searching for important amino acids in DNA-binding proteins for histogram methods. 7th International Symposium on Bioinformatics Research and Applications 2011. 2011

64. ‡Szabóová A, Kuželka O, Železný F, **Tolar J**. Searching for important amino acids in DNA-binding proteins for histogram methods. ISBRA IEEE/ACM Transactions on Computational Biology and Bioinformatics 2011. 2011

65. ‡Zhang H, Auray-Blais C, Young SP, Orchard P, **Tolar J**. Millington DS. Analysis of glycosaminoglycans in cerebrospinal fluid and urine using tandem mass spectrometry: potential for therapeutic monitoring of patients with mucopolysaccharidosis. American Society for Mass Spectrometry Meeting 2011. 2011

66. ‡Beebe D, George P, Hertel T, **Tolar J**, Belani K, Laberge T, Wagner J. Anesthetic outcomes of children with epidermolysis bullosa undergoing bone marrow transplantation. International Anesthesia Research Society 2011. Anesth Analg. 2011;112(5):S-340. 2011

67. ‡Bertin AJ, **Tolar J**, Osborn M, Hordinsky M, Wagner JE. Suction blister technique to evaluate skin fragility in children with recessive dystrophic epidermolysis bullosa (RDEB) treated with immunomyeloablative chemotherapy and allogeneic stem cell transplant. Society for Investigative Dermatology. J Invest Dermatol. 2011;131:S59. 2011

68. ‡Millington D, Zhang HY, Young S, Orchard P, **Tolar J**, Auray-Blais, C. Analysis of glycosminoglycans in cerebrospinal fluid using tandem mass spectrometry: potential for therapeutic monitoring of patients with mucopolysaccharidoses. Lysosomal Disease Network's WORLD Symposium 2011. Mol Genet Metabol. 2011;102(2):S29-S30. 2011

69. ‡Moin V, Le S, Garban H, Orchard P, **Tolar J**, Dickson P. Immune response to intrathecal enzyme therapy in Mucopolysaccharidosis I patients. Lysosomal Disease Network's WORLD Symposium 2011. Mol Genet Metabol. 2011;102(2):S43-S44. 2011

70. ‡Osborn MJ, Maeder ML, Joung JK, Blazar BR, **Tolar J**. Zinc finger nuclease generation for Fanconi anemia. 14th Annual American Society for Gene Therapy Meeting. Mol Ther. 2011;19(S1):S263. 2011

71. ‡Raza K, Price AP, Matson A, **Tolar J**, Hertz MI, Panoskaltsis-Mortari A. MSC therapy for obliterative bronchiolitis (OB). Am J Respir Crit Care Med. 2011;183:A5289. 2011

72. ‡Hyland KA, Olson ER, Zhou X, **Tolar J**, McIvor RS. *Sleeping Beauty*-mediated therapeutic gene transfer into hematopoietic stem cells. Fanconi Anemia Research Fund Scientific Symposium 2010. 2010

73. ‡Miller WP, Rothman S, Nascene D, Kivisto T, Defor T, Lund T, **Tolar J**, Orchard P. Outcomes following allogeneic hematopoietic stem cell transplantation for childhood cerebral variant adrenoleukodystrophy: a modern, single institution experience. Blood. 2010;116(21):1457-8. 2010

74. ‡Highfill SL†, Rodriguez P, Zhou Q†, Goetz CA†, Veenstra R†, Taylor PA, Panoskaltsis-Mortari A, Serody J, Munn D, **Tolar J**, Ochoa AC, Blazar BR. Bone marrow myeloid-suppressor cells (MDSC) inhibit graft versus host disease (GVHD) via an arginase-1 dependant mechanism that is upregulated by IL-13. 52nd Annual American Society of Hematology Meeting. Blood. 2010;116(21):111-2. 2010

75. ‡Eapen M, LeRademacher J, Deeg HJ, Antin JH, Champlin R, Carreras J, Fay JW, Passweg JR, **Tolar J**, Marsh JCW, Horowitz MM. Effect of stem cell source from unrelated donors on transplant outcomes in severe aplastic anemia (SAA): a comparison of unrelated bone marrow (BM) and peripheral blood progenitor cells (PBPC). American Society of Hematology. Blood. 2010;116(21):236. 2010

76. ‡Lund T, Lidke D, Kobs A, Blazar BR, **Tolar J**. "Tasting the microenvironment": Human bone marrow stromal cells have microenvironment chemosensory capacity via taste receptor expression. American Society of Hematology. Blood. 2010;116(21):414. 2010

77. ‡Decanini A, Bothun ED, Summers CG, Orchard PJ, **Tolar J**. Outcome of penetrating keratoplasty for mucopolysaccharidoses, World Cornea Congress 2010. 2010

78. ‡Greising SM, **Tolar J**, Blazar BR, Lowe DA. *Zmpste24-/-* mice, a murine model of human progeria, display atrophic skeletal muscles while function is selectively preserved. The First Annual Mayo Clinic Robert and Arlene Kogod Center on Aging Conference 2010. 2010

79. ‡Boelens JJ, Aldenhoven M, Purtill D, Eapen M, DeFor T, Wynn R, Cavazzana-Calvo M, **Tolar J**, Prasad VK, Escolar M, Gluckman E, Orchard P, Veys P, Kurtzberg J, Rocha V. Outcomes of transplantation using a various cell source in children with Hurler's syndrome after myeloablative conditioning. A Eurocord-EBMT-CIBMTR collaborative study. 2010 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2010;16(2):S180-181. 2010

80. ‡Lund TC, Kobs A, Blazar BR, **Tolar J**. Mesenchymal stem cells: healthy at any age. 2010 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2010;16(2):S214. 2010

81. ‡Hyland KA, Olson ER, Zhou X, **Tolar J**, McIvor RS. *Sleeping Beauty*-mediated gene transfer into hematopoietic stem cells. 13th Annual American Society of Gene and Cell Therapy Meeting 2010. 2010

82. ‡Dietz AC†, Orchard PJ, Baker KS, Giller RH, Savage SA, Alter BP, **Tolar J**. Disease-specific hematopoietic cell transplantation: reduced intensity conditioning regimen for dyskeratosis congenita. 23rd Annual American Society of Pediatrics Hematology/Oncology Meeting. Pediatr Blood Cancer. 2010;54(6):796. 2010

83. ‡Mynarek M, **Tolar J**, Albert MH, Boelens JJ, Cowan MJ, Escolar ML, Glomstein A, Küehl JS, Malm D, Orchard PJ, Lüecke T, Kurtzberg J, Sykora KW. Allogeneic haematopoietic stem cell transplantation in patients with alpha-mannosidosis: analysis of 13 patients. 36th Annual European Group for Blood and Marrow Transplantation Meeting. Bone Marrow Transplant. 2010;45:S313. 2010

84. ‡Szabóová A, Kuželka O, Železný F, **Tolar J**. Mining frequent spatial docking patterns in zinc finger-DNA complexes. MEDICON 2010 - 7th ESBME conference 2010. 2010

85. ‡**Tolar J**, Park IH, Xia L, Osborn MJ, Lund T, Orchard PJ, Daley GQ, Blazar BR. Hematopoietic differentiation of personalized induced pluripotent stem cells from patients with congenital enzymopathy, Hurler syndrome.7th Annual International Society for Stem Cell Research Annual Meeting 2010. 2010

86. ‡**Tolar J**, Park IH, Xia L, Lees CJ, Peacock B†, Webber B†, McElmurry RT, Eide CR, Orchard PJ, Kyba M, Osborn MJ, Lund TC, Wagner JE, Daley GQ, Blazar BR. Hematopoietic differentiation of personalized induced pluripotent stem cells from patients with congenital enzymopathy, Hurler syndrome. 7th Annual International Society for Stem Cell Research 2010. 2010

87. ‡**Tolar J**, Park IH, Xia L, Osborn MJ, Lund T, Orchard PJ, Daley GQ, Blazar BR. Patient-specific induced pluripotent stem cells in mucopolysaccharidosis type I. Lysosomal Disease Network WORLD Symposium 2010. 2010

88. ‡Braunlin E*, **Tolar J***, Orchard P, Mackey-Bojack S, Marsh T, Schoen FJ (EB and JT are co-first authors). Cardiac valvular interstitial cells in MPS 1. Lysosomal Disease Network WORLD Symposium 2010. Mol Genet Metabol. 2010;99(2):S12. 2010

89. ‡Orchard PJ, Basso L, Kivisto T, Raymond G, Charnas L, Lund TC, **Tolar J**. Chitotriosidase as a biomarker of cerebral adrenoleukodystrophy. Lysosomal Disease Network's WORLD Symposium 2010. Mol Genet Metabol. 2010;99(2):S28. 2010

90. ‡Long-Boyle J, Huang J, Rydholm N, Orchard P, **Tolar J**, Jacobson P. Pharmacokinetics of clofarabine in patients with high risk inherited metabolic disorders undergoing reduced intensity (RI) hematopoietic cell transplantation (HCT). Clin Pharmacol Ther. 2010;87(S1):S85. 2010

91. ‡Orchard PJ, Basso L, Kivisto T, Raymond G, Charnas L, Nascene D, Lund TC, **Tolar J**. Chitotriosidase as an inflammatory biomarker of cerebral adrenoleukodystrophy. 39th Annual Child Neurology Society Meeting. Ann Neurol. 2010;68(4):S117. 2010

92. ‡Lund TC, Panoskaltsis-Mortari A, Orchard PJ, **Tolar J**. Investigation of inflammatory makers in the CSF boys with cerebral adrenoleukodystrophy. 39th Annual Child Neurology Society Meeting. Ann Neurol. 2010;68(4):S121. 2010

93. ‡Miller W, Bjoraker KJ, Chamas LR, Kivisto T, Raymond GV, Rothman SM, Shapiro EG, **Tolar J**, Ziegler RS, Orchard PJ. Hematopoietic cell transplantation for adrenoleukodystrophy: Ten year experience with 62 patients. 39th Annual Child Neurology Society Meeting. Ann Neurol. 2010;68(4):S121. 2010

94. ‡Price A, **Tolar J**, Dutton J, Panoskaltsis-Mortari A. Bioengineering the lung with iPS cells in a decellularized lung matrix bioreactor system. Am J Respir Crit Care Med. 2010;181:A6607. 2010

95. ‡Szabóová A, Kuželka O, Železný F, **Tolar J**. Prediction of DNA-binding proteins from structural and low-resolution features. MLSB10 (Machine Learning in Systems Biology) 2010. http://mlsb10.ijs.si/files/MLSB10-Proceedings.pdf (p 71). 2010

96. ‡Hyland KA, Olson ER, Aronovich EL, Hackett PB, Blazar BR, **Tolar J**, McIvor RS. Analysis of *Sleeping Beauty* transposons for correction of Fanconi anemia in lymphoblastoid cell lines. 12th Annual American Society of Gene Therapy Meeting. Mol Ther. 2009;17;S119. 2009

97. ‡Hyland KA, Olson ER, McElmurry RT, Blazar BR, McIvor RS, **Tolar J**. *Sleeping Beauty*-mediated gene transfer into hematopoietic stem cells. 12th Annual American Society of Gene Therapy Meeting. Mol Ther. 2009;17;S264. 2009

98. ‡Wagner JE, Ishida-Yamamoto A, McGrath JA, Hordinsky M, Keene DR, Osborn M, Lund T†, Dolan M, Blazar BR, **Tolar J**. First use of allogeneic stem cells in the treatment of recessive dystrophic epidermolysis bullosa: demonstration of biochemical and clinical improvement. 51st Annual American Society of Hematology Meeting. Blood. 2009;114(22):275. 2009

99. ‡Lund T†, Glass T†, **Tolar J**, Zon LI, Blazar BR. A model system for visualization of whole-body Sdf-1 expression during hematopoietic cell transplant. 51st Annual American Society of Hematology Meeting. Blood. 2009;114(22):1400. 2009

100. ‡Smith AR, **Tolar J**, Kivisto T, Lund T†, Orchard PJ. Treatment of high risk inherited lysosomal and peroxisomal disorders using reduced intensity hematopoietic cell transplantation. 51st Annual American Society of Hematology Meeting. Blood. 2009;(22):1320. 2009

101. ‡Wagner JE, Ishida-Yamamoto A, McGrath JA, Hordinsky M, Keene DR, Osborn M, Lund T†, Dolan M, Blazar BR, **Tolar J**. First use of allogeneic stem cells in the treatment of recessive dystrophic epidermolysis bullosa: demonstration of biochemical and clinical improvement. 51st Annual American Society of Hematology Meeting. Blood. 2009;114(22):275. 2009

102. ‡**Tolar J**, Dickson P, Orchard PJ. Intravenous and intrathecal enzyme replacement before and after hematopoietic cell transplantation for Hurler syndrome. 2009 BMT Tandem Meetings. Biol Blood Marrow Transplant 2009;15(2):74. 2009

103. ‡MacMillan ML, Blazar BR, DeFor TE, Ma L, **Tolar J**, Zierhut H, Wagner JE. Alternate donor HCT for Fanconi anemia (FA): Results of a total body irradiation (TBI) dose de-escalation study. One of three recipients of the CIBMTR Best Abstract Award for Clinical Research. 2009 BMT Tandem Meetings. Biol Blood Marrow Transplant. 2009,15(2):3-4, 2009. 2009

104. ‡**Tolar J**, Dickson P, Orchard P. Combined intrathecal iduronidase, intravenous iduronidase and transplantation as therapy for Hurler syndrome. Lysosomal Disease Network WORLD Symposium 2009. Mol Genet Metab 2009;96(2):S43. 2009

105. ‡Shapiro E, Bjoraker K, Guler E, Delaney K, Chamas L, **Tolar J**, Whitley C, Thomas K. Neuropsychological outcomes in Hurler syndrome: 7-20 years post-hematopoietic stem cell transplantation. Lysosomal Disease Network WORLD Symposium 2009. Mol Genet Metab. 2009;96(2):S40-S41. 2009

106. ‡Lund TC†, Glass TJ†, **Tolar J**, Blazar BR. Expression of telomerase and telomere length are unaffected by either age or limb regeneration in danio rerio. European Zebrafish Genetics and Development Meeting 2009. 2009

107. ‡Lund TC†, Glass TJ†, **Tolar J**, Zon LI, Blazar BR. SDF-1 expressing cells establish the hematopoietic stem cell (HSC) niche and play a role in HSC homing following adoptive cell transfer in a zebrafish model of bone marrow transplant. European Zebrafish Genetics and Development Meeting 2009. 2009

108. ‡Orchard PJ, Basso L, Kivisto T, **Tolar J**. Chitotriosidase as a biomarker of cerebral adrenoleukodystrophy. European Leukodystrophies Association Research Foundation Council 2009. 2009

109. ‡Wagner JE, Ishida-Yamamoto A, McGrath JA, Keane D, Hordinsky M, Christiano AM, Blazar BR, **Tolar J**. First use of allogeneic bone marrow-derived stem cells (BMSCs) to correct the biochemical and clinical manifestations of recessive dystrophic epidermolysis bullosa (RDEB). Pediatric Academic Societies Meeting 2009. 2009

110. ‡Higgins L, Lund TC†, Kobs AJ, Anderson LB, Orchard PJ, **Tolar J**. Identification of new markers of mesenchymal stem cell differentiation with iTRAQ® Technology. American Society of Mass Spectrometry Conference on Mass Spectrometry and Allied Topics 2009. J Am Soc Mass Spectrom. 2009;20(1S):S86. 2009

111. ‡Greising SM, **Tolar J**, Blazar BR, Lowe DA. Skeletal muscle function and neuromuscular performance in *Zmpste24*$^{-/-}$ mice, a murine model of human progeria. Gerontological Society Association Meeting 2009. 2009

112. ‡Highfill SL†, **Tolar J**, Blazar BR. Multipotent adult progenitor cells (MAPC) potently suppress T-cell alloresponses in vitro and reduce GVHD-related pathology through the synthesis of prostaglandin. Molecular Targets for Cancer Therapy Meeting 2009. 2009

113. ‡Holec M, Kléma J, Železný F, Belohradsky J, **Tolar J**. XGENE.ORG: a web tool for cross-genome expression data analysis. International Conference on Bioinformatics, Computational Biology, Genomics and Chemoinformatics (BCBGC-09) 2009. 2009

114. ‡Holec M, Železný F, Kléma J, **Tolar J**. Integrating multiple-platform expression data through gene set features. International Symposium on Bioinformatics Research and Applications 2009. 2009

115. ‡Hui SK, Kidder L, Wang H, Lees C, McElmurry R, Song C, **Tolar J**, Verneris M. Impact of radiation dose escalation on bone marrow microenvironment and allogeneic hematopoiesis in a murine model. American Association of Physicists in Medicine Meeting 2009. 2009

116. ‡**Tolar J**, Pueringer RC†, McElmurry RT, Warner HR, Young SG, Blazar BR. Mesenchymal stem cells ameliorate murine progeria phenotype. 50th Annual American Society of Hematology Meeting. Blood. 2008;112(11):841. 2008

117. ‡MacMillan ML, Blazar BR, DeFor TE, Ma L, **Tolar J**, Zierhut H, Wagner JE. Alternate donor HCT for Fanconi anemia (FA): results of a total body irradiation (TBI) dose de-escalation study. 50th Annual American Society of Hematology Meeting, Blood 112(1):1030-1, 2008. 2008

118. ‡Martinez C, Orchard PJ, Wagner JE, Petryk A, **Tolar J**. Hypercalcemia after hematopoietic cell transplantation for osteopetrosis. American Society for Blood and Marrow Transplantation Meeting 2008. Biol Blood Marrow Transplant. 2008;14(2):82. 2008

119. ‡Martinez C, **Tolar J**, Wagner JE, Tan PL, DeFor TE, Baker KS, Orchard PJ. Feasibility of unrelated umbilical cord blood transplantation in congenital childhood diseases. American Society for Blood and Marrow Transplantation Meeting 2008, San Diego, California. Biol Blood Marrow Transplant. 2008;14(2):17. 2008

120. ‡**Tolar J**, Orchard PJ, Key NS, Blazar BR. Glycosaminoglycans as anticoagulants in Mucopolysaccharidosis Type I (MPS I). American Society for Blood and Marrow Transplantation Meeting 2008. Biol Blood Marrow Transplant. 2008;14(2):48. 2008

121. ‡Verneris MR, Gulbahce E, Burke M, Cao Q, Macmillan ML, **Tolar J**, Orchard PJ, Blazar BR, Baker KS, Wagner JE. Lower leukemia relapse in patients with pulmonary cytolytic thrombi after allogeneic hematopoietic cell transplant. American Society of Blood and Marrow Transplantation Meeting 2008. Biol Blood Marrow Transplant. 2008;14(2):81-2. 2008

122. ‡Smith AR, **Tolar J**, DeFor TE, Weisdorf DJ, MacMillan ML. Severe hemorrhagic cystitis (HC) after hematopoietic stem cell transplantation (HSCT): incidence and risk factors. American Society for Blood and Marrow Transplantation Meeting 2008. Biol Blood Marrow Transplant. 2008;14(2):32-33. 2008

123. ‡**Tolar J**, Charnas L, Bjoraker KJ, Shapiro EG, Orchard PJ. Niemann-Pick disease: survival after umbilical cord blood transplantation. Lysosomal Disease Network/WORLD Symposium. Mol Genet Metab. 2008;93(2):S39. 2008

124. ‡**Tolar J**, Petryk A, Khan K, Bjoraker KJ, Jessurun J, Charnas L, Grabowski GA, Shapiro EG, Orchard PJ. Long-term outcome of hematopoietic cell transplantation for Wolman disease. Lysosomal Disease Network/WORLD Symposium. Mol Genet Metab. 2008;93(2):S39. 2008

125. ‡Polgreen L, Plog M, **Tolar J**, Orchard PJ, Schwender JD, Miller B, Petryk A. Growth hormone therapy improves growth in Hurler syndrome with minimal effect on scoliosis, kyphosis, or genu valgum. Lysosomal Disease Network/WORLD Symposium. Mol Genet Metab. 2008;93(2):S33. 2008

126. ‡**Tolar J**, Ishida-Yamamoto A, McElmurry RT, Xia L, Riddle M, Bazzi H, Uitto J, Wagner J, Blazar BR, Christiano A. Correction of the skin defects in murine dystrophic epidermolysis bullosa by bone marrow derived SLAM family receptor enriched hematopoietic stem cells. Society for Investigative Dermatology Meeting. J Invest Dermatol. 2008;128(S1):S122. 2008

127. ‡Liang X, **Tolar J**, Miller JS, LeBien TW, Blazar BR, Chen W. Toll-like receptor 7 agonist induces apoptosis of human B-lineage acute lymphocytic leukemia cells in vitro and in vivo. American Society of Clinical Oncology Meeting 2008. J Clin Oncol. 2008;26(15):S3033. 2008

128. ‡**Tolar J**, Braunlin E, McElmurry RT, Lees CJ, Riddle M, Mansoor AM, Zhang JY, Blazar BR. Host immune factors and donor adult stem cells mediate myocardial ischemia repair. Scientific Session of the American Heart Association Meeting. Circulation. 2008;118(18):S288-S289. 2008

129. ‡Polgreen LE, Plog M, Schwender JD, **Tolar J**, Orchard PJ, Miller BS, Petryk A. Improved growth velocity in children with Hurler syndrome treated with growth hormone and the impact on skeletal abnormalities. Pediatric Academic Societies Meeting 2008. 2008

130. ‡Charnas L, **Tolar J**, Orchard PJ. Improved survival and functional outcome using adjunctive N-acetyl-L-cysteine with hematopoietic cell transplantation in late stage cerebral adrenoleukodystrophy (CALD). Meeting of the American Neurological Society 2008. Ann Neurol. 2008;64(S12):S113. 2008

131. ‡Hyland KA, Olson ER, McElmurry RT, Blazar BR, McIvor RS, **Tolar J**. Sleeping Beauty-mediated gene transfer for correction of Fanconi anemia. Fanconi Anemia Research Fund Scientific Symposium 2008. 2008

132. ‡Hyland KA, Olson ER, McElmurry RT, Blazar BR, McIvor RS, **Tolar J**. *Sleeping Beauty*-mediated gene transfer for correction of Fanconi anemia. American Society of Gene Therapy Meeting 2008. Mol Ther. 2008;16(S1):S354. 2008

133. ‡Liang Q, **Tolar J**, Yamada K, Arai N, LeBien TW, Blazar BR, Chen W. Toll-like receptor 9-targeting of human B-lineage acute lymphocytic leukemia with CpG oligodeoxynucleotides directly inhibits the growth and induces apoptosis of leukemia cells in vitro and in vivo. 37th Annual International Society of Experimental Hematology Scientific Meeting. Exp Hematol. 2008;36(7):S20. 2008

134. ‡Robu V, Cioc A, **Tolar J**, Dolan M. A complex 8p11.2 translocation in a myelodysplastic/myeloproliferative disease: A variant of the 8p11.2 myeloproliferative syndrome? Academy of Clinical Laboratory Physicians and Scientists Meeting 2008. 2008

135. ‡**Tolar J**, Jacobson P, Charnas L, Orchard PJ. Brain sparing conditioning regimen and umbilical cord blood transplantation for inherited high risk neurologic metabolic diseases. 49th Annual American Society of Hematology Meeting. Blood. 2007;110(11):883A-884A. 2007

136. ‡**Tolar J**, Orchard PJ, Miller JS, MacMillan ML, Wagner JE, Alter BP, Baker KS. Dyskeratosis Congenita: Low regimen-related toxicity following hematopoietic cell transplantation (HCT) using a reduced intensity conditioning regimen. 49th Annual American Society of Hematology Meeting. Blood. 2007;110(11):597A. 2007

137. ‡Jacobson PA, Huang J, Rydholm N, Tran N, DeFor T, **Tolar J**, Orchard PJ. Higher mycophenolate dose requirements in children undergoing hematopoietic cell transplant (HCT). 49th Annual American Society of Hematology Meeting. Blood. 2007;110(11):884A. 2007

138. ‡MacMillan ML, Blazar BR, DeFor TE, Dusenbery KR, **Tolar J**, Wagner JE: Total body irradiation (TBI) dose de-escalation study in FA patients undergoing alternate donor HSCT. Fanconi Anemia Research Fund Scientific Symposium 2007. 2007

139. ‡**Tolar J**, MacMillan ML, Batish SD, Eide C, Flit Y, Davies SM, Blazar BR, Auerbach AD, Wagner JE: Impact of somatic cell mosaicism in Fanconi anemia on development of bone marrow failure. 12th Annual Congress of the European Hematology Association. Haematologica. 2007;92:162. 2007

140. ‡Charnas L, Orchard PJ, Bjoraker KJ, Ziegler RS, **Tolar J**, Shapiro E. N-acetyl-L-cysteine improves survival and neurologic outcome in late stage cerebral adrenoleukodystrophy following hematopoietic stem cell transplantation. American Academy of Neurology Meeting. Neurology. 2007;68(12):A405. 2007

141. ‡Lund TC†, Basso L, **Tolar J**, Orchard PJ. G-CSF mobilized human peripheral blood contains adherent cells with mesenchymal stem cell-like properties that have telomere limited growth in vitro. 20th Annual American Society for Pediatric Hematology and Oncology Meeting 2007. 2007

142. ‡Osborn MJ†, **Tolar J**, Blazar BR. Targeting of refractory sites in MPS I using a nonviral transferring-a-L-iduronidase fusion gene product. 10th Annual American Society for Gene Therapy Meeting 2007. 2007

143. ‡**Tolar J**, Bonfim C, Grewal S, Orchard P. Engraftment and survival following hematopoietic stem cell transplantation for osteopetrosis using a reduced intensity conditioning regimen. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):897A. 2006

144. ‡**Tolar J**, MacMillan ML, Batch SD, Eide C, Flit Y, Davies SM, Blazar BR, Auerbach AD, Wagner JE. High incidence of hematopoietic stem cell mosaicism in Fanconi anemia. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):296A. 2006

145. ‡**Tolar J**, Nauta AJ, Osborn M†, Panoskaltsis-Mortari A, Zhang J, McElmurry RT, Bell S, Xia L, Zhou N, Riddle M, Schroeder TM, Westendorf JJ, McIvor RS, Hogendoom PCW, Szuhai K, Oseth L, Hirsch B, Yant SR, Kay MA, Peister, A, Prockop DJ, Fibbe WE, Blazar BR. Osteosarcoma derived from cultured mesenchymal stem cells. 48th Annual American Society of Hematology Meeting 2006. Blood. 2006;108(11):722A.. 2006

146. ‡Harker-Murray PD, Verneris MR, Thomas AJ, Luo XH, MacMillan ML, **Tolar J**, Baker KS, Wagner JE, Orchard PJ. Hematopoietic cell transplantation as therapy for pediatric patients with relapsed acute lymphoblastic leukemia with and without CNS involvement. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):886A. 2006

147. ‡Weigel BJ, **Tolar J**, Lees C, Chen W, Miller JS, Panoskaltsis-Mortari A, Blazar BR: Therapeutic stimulation of the adaptive and innate immune system by toll-like receptor TLR7/8 agonists reduces AML tumor burden and improves survival in a murine model. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):557A.. 2006

148. ‡Liang X, **Tolar J**, Miller, JS, LeBien TW, Blazar BR, Chen W: Toll-like receptor 7-targeting of human B-lineage acute lymphocytic leukemia induces immunogenicity and apoptosis of leukemia cells. 48th Annual American Society of Hematology Meeting. Blood. 2006;108(11):212A. 2006

149. ‡Charnas L, **Tolar J**, Orchard PJ. N-ACetyl-L-cysteine improves outcome of advanced cerebral adrenoleukodystrophy. Annual WORLD Symposium on Lysosomal Diseases 2006. Mol Genet Metab. 2007;92(4):S23-4. 2006

150. ‡Harker-Murray P, Dayton V, Neglia J, **Tolar J**. Treatment of EBV-associated T cell post-transplant lymphoproliferative disorder with CNS involvement in a pediatric solid-organ transplant patient. American Society of Clinical Oncology Meeting. J Clin Oncol. 2006;24(18S):511S. 2006

151. ‡Trajkovski I, Železný Z, **Tolar J**, Lavrač N. Relational subgroup discovery for descriptive analysis of microarray data. International Symposium on Computational Life Science (CompLife) 2006. 2006

152. ‡Zayed H, Xia L, Yerich A, Yant SR, Kay MA, Puttaraju M, McGarrity GR, Wiest DL, McIvor RS, **Tolar J**, Blazar BR. Correction of severe combined immune deficiency in multipotent adult progenitor cells by spliceosome-mediated RNA trans-splicing and *Sleeping Beauty* transposon delivery. 35th Annual International Society for Experimental Hematology Meeting. Exp Hematol 2006;34(9):49. 2006

153. ‡**Tolar J**, Osborn MJ†, Panoskaltsis-Mortari A, McElmurry RT, Bell S, Xia L, Riddle M, Schroeder TM, Westendorf JJ, McIvor RS, Oseth L, Hirsch B, Yant SA, Kay MA, Peister A, Prockop D, Blazar BR. Mesenchymal cancer cells can arise from ex vivo modified mesenchymal stem cells. 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):161B. 2005

154. ‡**Tolar J**, Wang XH, Bell S, Nakamura Y, McElmurry RT, Xia L, Zhang J, Blazar B. Multipotent adult progenitor cells (MAPCs) improve cardiac function after ischemic injury. 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):485A. 2005

155. ‡Brunstein CG, Weisdorf DJ, DeFor T, **Tolar J**, Wagner JE. Increased risk of Epstein-Barr virus associated post-transplant lymphoproliferative disorder (EBV-PTLD) after anti-thymocyte globulin (ATG) non-myeloablative (NMA) conditioning for umbilical cord blood transplantation (UCBT). 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):904A. 2005

156. ‡Harker-Murray P, **Tolar J**, Tan Y, MacMillan ML, Wagner J, Orchard PJ. Hematopoietic cell transplantation as therapy for pediatric patients with isolated CNS relapse. 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):770A. 2005

157. ‡Orchard PJ, **Tolar J**, Basso L, Brunstein C, Tomblyn M, Baker S, Blazar B, Wagner J, Miller JS. Immunotherapy of EBV post solid organ transplantation lymphoproliferative disease with genetically engineered haploidentical T cells. 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):473B. 2005

158. ‡Yun G, **Tolar J**, Noreen H, Blazar B, Miller J. A novel method for KIR-ligand typing by pyrosequencing to predict NK cell alloreactivity. 47th Annual American Society of Hematology Meeting. Blood. 2005;106(11):406A-407A. 2005

159. ‡Zhou X, Huang X, Wilber AC, Bao L, Tuong D, **Tolar J**, Orchard PJ, Levine BL, June CH, McIvor S, Blazar BR. Stable gene transfer and expression in human primary T-cells by the *Sleeping Beauty* transposon system. 47th Annual American Society of Hematology Meeting. Blood, 2005;106(11):473B. 2005

160. ‡Subramanian S, Bui Nguyen TM, **Tolar J**, Blazer B, Ramakrishnan S. Adeno-associated virus mediated delivery of a mutant endostatin inhibits orthotopic growth of ovarian cancer in athymic mice. American Association for Cancer Research Meeting 2005. 2005

161. ‡Verfaillie CM, Jiang Y, Luttun A, Ross J, Oki M, Serafini M, Buckley S, Laksmipathy U, Zeng L, **Tolar J**, Blazar B. Multipotent adult stem cells. International Umbilical Cord Blood Transplantation Symposium. Biol Blood Marrow Transplant. 2005;11(11):938.. 2005

162. ‡Železný F, **Tolar J**, Lavrač N, Štěpánková O. Relational subgroup discovery for gene expression data mining. European Medical & Biological Conference 2005. 2005

163. ‡**Tolar J**, Osborn M†, Bell S, Xia L, Riddle M, Panoskaltsis-Mortari A, McIvor S, Yant SR, Kay MA, Contag CH, Verfaillie CM, Blazar BR. Transgenesis of multipotent adult progenitor cells (MAPC) with *Sleeping Beauty* transposons to determine MAPC homing and persistence in real-time in vivo. 46th Annual American Society of Hematology Meeting. Blood. 2004;104(11):577A-578A. 2004

164. ‡Panoskaltsis-Mortari A, Price A, Tram K, Berthold M, McElmurry R, **Tolar J**, Orchard P, Peters C, Clarke L, Blazar BR. Pulmonary complications due to iduronidase deficiency (Hurler syndrome) linked to active pro-inflammatory status. 46th Annual American Society of Hematology Meeting. Blood. 2004;104(11):509A. 2004

165. ‡Braunlin EA, **Tolar J**, Berry JM, Panoskaltsis-Mortari A, McElmurry RT, Clarke LA, Blazar BR. Cardiac ultrasound assessment of the MPS1 ("Hurler") mouse heart. Pediatric Academic Societies Meeting. Pediatr Res. 2004;55(4):42A. 2004

166. ‡McIvor, RS, Hackett PB, Ekker SC, Wangensteen KJ, Fahrenkrug SC, Carlson D, Zeng G, Wang X, **Tolar J**, Blazar BR, Frandsen JL, Belur LR, Wilber, AC. bioluminescence imaging in the study of *Sleeping Beauty*-mediated gene transfer and expression in vivo. Gene Therapy Symposium for Heart, Lung, and Blood Diseases 2004. 2004

167. ‡Panoskaltsis-Mortari A, Hermanson J, Price A, **Tolar J**, Verfaillie C, Blazar BR. Differentiation of type II pneumocyte-like cells from murine bone marrow-derived multipotent adult progenitor cell (MAPCs) in vitro. American Thoracic Society 2004. 2004

168. ‡Auerbach AD, **Tolar J**, Levran O, Scholl T, Deffenbaugh A, Satagopan J, Ben-Porat L, Mah K, Kutler DI, Batish DS, MacMillan ML, Hanenberg H, Wagner JE. Germline mutations in BRCA2: shared genetic susceptibility to breast cancer, early onset leukemia and Fanconi anemia. 45th Annual American Society of Hematology Meeting. Blood. 2003;102(11):23A. 2003

169. ‡**Tolar J**, Clarke LA, Jiang Y, McElmurry RT, Vengco I, Yerich AK, Peters C, Verfaillie CM, Blazar BR. Multipotent adult progenitor cells (MAPCs) reduce Glycosaminoglycan (GAG) accumulation in a murine model of Hurler syndrome (MPS 1H). 45th Annual American Society of Hematology Meeting. Blood. 2003;102(11):839A. 2003

170. ‡**Tolar J**, Jiang Y, McElmurry R, Jahagirdar B, Blackstad M, Verfaillie CM, Blazar BR. The perinatal transfer of murine multipotent adult progenitor cells (MAPCs) result in engraftment and differentiation. Fanconi Anemia Research Fund Scientific Symposium 2002. 2002

171. ‡**Tolar J**, Bostrom B. Intravenous 6-mercaptopurine and the risk of central nervous system relapse in acute lymphoblastic leukemia: CCG 1992 study. American Society of Pediatric Hematology and Oncology (ASPHO) Meeting 2001. 2001

TEACHING AND CURRICULUM DEVELOPMENT

Courses Taught

Stem Cell Biology SCB 8181	2011-2018
Pediatric Hematology/Oncology Rotation PED 7536 University of Minnesota Medical School, 96 medical students mentored	2005-2013
Instructor: Blood Pathophysiology	2006-2008

Clinical Teaching Responsibilities

“Bone Marrow Failure,” Fellows Talk (Pediatrics)	8/16/2016
“Bone Marrow Failure,” Fellows Talk (Pediatrics)	3/14/2016
“Bone Marrow Failure,” Fellows Talk (Pediatrics)	8/6/2014
“Bone Marrow Failure,” Fellows Talk (Pediatrics)	8/14/2013
“Bone Marrow Failure,” Fellows Talk (Pediatrics)	3/27/2013
“Congenital Cytopenias,” BMT Fellows Talk (Internal Medicine)	2/22/2013
“Working Laboratory Tour,” Amplatz nurses	2/12/2013
“Bone Marrow Failure Symptoms,” Fellows Talk	7/11/2012
“Bone Marrow Failure,” Fellows Talk	4/4/2012
“Bone Marrow Failure,” Fellows Talk	3/2/2011
“BMT Basics,” Pediatric Resident Lecture Series	3/25/2010
“Bone Marrow Failure Syndromes,” Fellows Talk	3/17/2010
“Bone Marrow Failure in Children,” Medicine Lecture	3/5/2010
“BMT Basics,” Pediatric Resident Lecture Series	8/4/2009
“BMT Basics,” Pediatric Resident Lecture Series	7/31/2008
“BMT Basics,” Pediatric Resident Lecture Series	7/30/2007
“BMT Basics,” Pediatric Resident Lecture Series	8/11/2006

"BMT Basics," Pediatric Resident Lecture Series	8/15/2005
"BMT Basics," Pediatric Resident Lecture Series	8/30/2004
"Emergencies in Pediatric Oncology," in-service seminar	2/24/2004

Formal Didactic Lectures Presented

"Roles for Residents in Research and the Future of Artificial Intelligence," University of Minnesota, Department of Surgery, Residents Research Program Seminar Series, Minneapolis.	12/19/2019
"Scientific Method and Truthfullness," University of Minnesota's Medical School Pediatric Interest Group, Minneapolis.	6/2/2017
"Gene Editing-From Basepairs to Bedside," University of Missouri, Kansas City, MO.	5/23/2017
"Regenesis of Epidermolysis Bullosa: from Cloning to Clinic," Harvard Stem Cell Institute, Boston, MA.	5/1/2017
"How Bone Marrow Transplantation Changed Medicine (and Me)," Career development talk to Medical Scientist Training Program students, University of Minnesota, Minneapolis.	8/3/2016
"Regenerative Medicine: A Necessary Solution," CEO Roundtable "Winsights Network", Minneapolis.	5/6/2016
"The Most Critical Need of this Century: Regenerative Medicine," first-year medical students, Mayo Clinic, Rochester.	4/12/2016
"Mentoring and Setting Up and Running a Successful Research Lab," Department of Medicine Postdoc T32 trainees, University of Minnesota, Minneapolis.	4/4/2016
"Regenerative Medicine: The Most Critical Need of this Century," Division of Epidemiology T32 grant curriculum, University of Minnesota, Minneapolis.	3/14/2016
"The Korean Experience," Department of Surgery Transplant Conference, University of Minnesota, Minneapolis.	2/19/2016
"Science and the Social Good. Societal Impacts of Scientific Research," postdoc T32 trainees and medical students, University of Minnesota, Minneapolis.	2/12/2016
"EB—No Longer the Waiting Game," Children's Center for Cancer and Blood Diseases, Children's Hospital Los Angeles, Los Angeles, CA.	10/25/2015
"Heterologous Stem Cell Transplant, an Example of Clinical Translation of Basic Biology," Medical School applicants, University of Minnesota, Minneapolis.	5/16/2015
"Clinical Care of a Child with EB," Unit 4 Talk, University of Minnesota Masonic Children's Hospital, Minneapolis.	5/4/2015
"Gene and Cellular Therapy for Epidermolysis Bullosa: More than Skin Deep," Medical Science Training Program Seminar for MD/PhD candidates, University of Minnesota, Minneapolis.	11/17/2014
"Immunity in Genetic Disorders, Cancer, and Bone Marrow Transplant," PICU fellows and staff lecture, University of Minnesota Children's Hospital, Minneapolis.	3/11/2014
"EB Basics, Changes in Protocols, Survivorship, Future Expectations," Pediatric Bone Marrow Transplant Nurse Practice Council, University of Minnesota Children's Hospital, Minneapolis.	8/13/2013
"Stem Cells and Regenerative Biology: *Local Wins and Global Impacts*," Mini Medical School, Academic Health Center, University of Minnesota, Minneapolis.	3/4/2013
"Stem Cell Gene Therapy for Epidermolysis Bullosa," 2012 Pediatric Dermatology Progress and Practices Conference, University of Minnesota, Minneapolis.	5/18/2012
"How Do I Treat BMT Complications?" PICU fellows and staff lecture, University of Minnesota, Minneapolis.	3/8/2012

"Clinical Applications of Hematopoietic Grafting," Graduate Stem Cell Biology, SCB 8181, University of Minnesota, Minneapolis.	10/10/2011
"Epidermolysis Bullosa: Terminal Desperation or Terminal Optimism?" Blood and Marrow Transplant Conference, University of Minnesota, Minneapolis.	6/8/2011
"Bone Marrow Cells for Correction of Extracellular Matrix Disorder Epidermolysis Bullosa," MICaB Seminar, University of Minnesota, Minneapolis.	3/31/2011
"Success in Bone Marrow Failure," Pediatric Hematology/Oncology Fellowship Didactic Conference, University of Minnesota, Minneapolis.	3/2/2011
"Lethal Epidermolysis Bullosa: The Quest for the Cure," Grand Rounds with Dr. John Wagner, University of Minnesota, Minneapolis.	9/8/2010
"Pediatric SAA Algorithm & Iron Overload Algorithm," Blood and Marrow Transplant Conference, University of Minnesota, Minneapolis.	2/15/2010
"MPS I-Specific Induced Pluripotent Stem Cells," Preceptorship for BMT: Minnesota-based Initiatives in MPS I Care and Research Quarterly Educational Meeting for Genzyme's Metabolic Specialists, University of Minnesota, Minneapolis.	10/14/2009
"Hematopoietic Cell Transplantation for Correction of Collagen Type VII Deficit in Recessive Dystrophic Epidermolysis Bullosa," Department of Laboratory Medicine and Pathology, Grand Rounds, University of Minnesota, Minneapolis.	10/14/2009
"Clinical Applications of Hematopoietic Grafting," graduate course in Stem Cell Biology, Stem Cell Institute, University of Minnesota, Minneapolis.	10/10/2009
"Early Complications of BMT (TRM)," Pediatric Hematology/Oncology Fellowship Didactic Conference, University of Minnesota, Minneapolis.	9/30/2009
"Adult Stem Cells for Treatment of Recessive Dystrophic Epidermolysis Bullosa (RDEB)," Pediatric Research Seminar, University of Minnesota, Minneapolis.	9/14/2009
"Early Complications of BMT," Pediatric Fellow Lecture Series, University of Minnesota, Minneapolis.	9/9/2009
"Dystrophic Epidermolysis Bullosa: New Approach to Treating this Devastating Disease," Advanced Pediatric Dermatology (CME course) University of Minnesota, Minneapolis.	5/15/2009
"Can Extra-cellular Matrix Disorders be Cured by Hematopoietic Cell Transplantation?" Transplant Conference, Minneapolis.	5/13/2009
"BMT for ICU Physicians," PICU Didactic Curriculum Lecture, University of Minnesota, Minneapolis.	4/16/2009
"Hurler Syndrome: Combine and Conquer," Krivit Lectureship, Pediatric Grand Rounds, University of Minnesota, Minneapolis.	3/11/2009
"Hematopoietic Cell Transplantation for Hurler Syndrome," Mucopolysaccharidosis Summer Seminar, Minneapolis.	7/26/2008
"Blood and Marrow Transplantation," Topics & Advances in Pediatrics (CME course), University of Minnesota, Minneapolis.	3/27/2008
"Bone Marrow Failure," Pediatric Fellow Lecture Series, University of Minnesota, Minneapolis.	1/23/2008
"Cellular Therapy for Epidermolysis Bullosa," Department of Dermatology Grand Rounds, University of Minnesota, Minneapolis.	12/14/2007
"Biology and Practice of Hematopoietic Cell Transplantation," clinical seminar, University of Minnesota, Minneapolis.	11/8/2007
"Biology of Stromal Cells," Department of Surgery Research Conference, University of Minnesota, Minneapolis.	8/22/2007

"Stem Cell Transplantation for Epidermolysis Bullosa," clinical seminar, University of Minnesota, Minneapolis.	8/21/2007
"Combining Enzyme Replacement with Hematopoietic Stem Cell Transplantation," Mucopolysaccharidosis Summer Seminar, Minneapolis.	7/14/2007
"Care of the Sick and Dying Child," clinical seminar, University of Minnesota, Minneapolis.	7/12/2007
"Mesenchymal Stem Cells and Immunity," Stem Cell Institute Conference, University of Minnesota, Minneapolis.	5/23/2007
"Lysosomal Storage Disorders," Pediatric Fellow Lecture Series, University of Minnesota, Minneapolis.	1/24/2007
"Bone Marrow Failure," Pediatric Fellow Lecture Series, University of Minnesota, Minneapolis.	1/7/2007
"Thinking Outside the Dish: Stem Cell Gene Therapy," Blood and Marrow Transplant Conference, University of Minnesota, Minneapolis.	12/18/2006
"Umbilical Cord Blood Transplantation," Topics & Advances in Pediatrics (CME course), University of Minnesota, Minneapolis.	6/15/2006
"Adult Stem Cells for Tissue Repair," Blood and Marrow Transplant Conference, University of Minnesota, Minneapolis.	12/19/2005
"Gene Therapy in Pediatric Hematology/Oncology," Pediatric Fellow Lecture Series, University of Minnesota, Minneapolis.	11/16/2005
"Anti-CD20 Antibody for Prevention and Treatment of PTLD," Post-transplant lymphoproliferative disorder conference, University of Minnesota, Minneapolis.	3/7/2005
"MPS I—Cardiac Findings in Mice and Children," Department of Pediatrics Grand Rounds (with Dr. Braunlin), University of Minnesota, Minneapolis.	3/2/2005
"Top 10 Reports on PTLD in 2004," Post-transplant lymphoproliferative disorder conference, University of Minnesota, Minneapolis.	1/10/2005
"MAPCs Reduce Glycosaminoglycans in Hurler Syndrome," Pediatric Faculty Meeting, University of Minnesota, Minneapolis.	12/16/2003
"Emergencies in Pediatric Oncology," Intensive care nursing staff continuing education presentation, Fairview-University Medical Center, Minneapolis.	11/12/2003
"Immune Surveillance and the Risk of PTLD," Post-transplant lymphoproliferative disorder conference, University of Minnesota, Minneapolis.	9/8/2003
"Review of ANHL0221 COG Protocol," Post-transplant lymphoproliferative disorder conference, University of Minnesota, Minneapolis.	5/3/2003

Collaborative Efforts and Activities

Training grant faculty member

Ingbar/Shimizu	T32 Clinical & Translational Science KL2/TL1 Training Grant	2015-present
Vercellotti	T32 Hematology Research Post-Doctoral Training Grant	2015-present
Perlingeiro	T32 Stem Cell Institute Training Grant, University of Minnesota	2013-present
Spector	T32 Transdisciplinary Pediatric Cancer Epidemiology Research Training Grant, University of Minnesota	2012-present
Hogquist	T32 Immunology Training Program, University of Minnesota	2012-present
Campbell/Bitterman	R25 Summer Research at the University of Minnesota Pharmacology Training Grant	2013-2018

Bache	T32 Multidisciplinary Training in Cardiovascular Research Training Grant, University of Minnesota	2012-2015

Organization of collaborative meetings for the Stem Cell Institute

3rd Annual Regional Regenerative Symposium, Minneapolis, MN	11/12/2015
3rd Annual Engineering and Stem Cell Institute Joint Symposium	10/2/2015
2nd Annual Regional Regenerative Symposium, Minneapolis, MN	11/20/2014
2nd Annual Engineering and Stem Cell Institute Joint Symposium – Cardiovascular	10/10/2014
Mathematics and Stem Cell Institute Joint Collaboration Workshop	7/24/2014
Solid Organ Transplant and Stem Cell Institute Joint Collaboration Workshop	5/29/2014
Pharmacy and Stem Cell Institute Joint Collaboration Workshop	5/13/2014
Solid Organ Transplant and Stem Cell Institute Joint Collaboration Workshop	4/9/2014
1st Annual Engineering and Stem Cell Institute Joint Symposium	12/5/2013
1st Annual Regional Regenerative Symposium, River Falls, WI	11/19/2013
5th Annual NHLBI Progenitor Cell Biology Consortium	10/1-2/2013

ADVISING AND MENTORING

Undergraduate Student Activities

Undergraduate Research Projects

Chloe Strege, BS (Regents Scholar) (a Patrick J. Manning Research Award) "Methods for Decreasing Pre-weaning Mortality in a Fragile Mouse Model of Hypomorphic Collagen VII Deficiency"	2024
William Miller "Generation of RDEB x NSG Mice via *in vivo* Genome Editing"	2019
Robyn Lipschultz	2018
Kaliope (Kalli) Xiong	2017-2018
Charles (Humphrey) Pruette	2017-2018
Kelby Wittenberg	2017-2018
Valencia Owens	2016-2019
Margaretha (Maisie) Van Sloan	2016-2018
Huyen Dieu Nguyen	2016
Jeremy Yeung "Gene editing potentials for recessive dystrophic epidermolysis bullosa (RDEB)."	2016
Daniel Muldoon "Regulation of fibrosis in recessive dystrophic epidermolysis bullosa." Undergraduate Research Opportunities Program, 2016 Undergraduate Research Fair, University of Minnesota.	2016
Emily Woska (Life Sciences Summer Undergraduate Research Programs), Duke University.	2016
Christopher Fuguet	2015-2017
Benjamin Manning	2015

Michael Stutzman "Gene editing of laminin 332 deficient cells in junctional epidermolysis bullosa"	2015
Jared Bruggeman	2015
Paola Caballero-Léon (Life Sciences Summer Undergraduate Research Programs), University of Puerto Rico "The role of matrix metalloproteinases in the outcome of bone marrow transplant for junctional epidermolysis bullosa." Medical Scientist Training Program Seminar 2015.	2015
Evan Ogren	2015
Pavithra Ramakrishnan	2015
Benjamin Bachan	2015
Aryik Bhattacharya	2015
Christopher Lee (medical student)	2014-2015
Christopher Bays (Life Sciences Summer Undergraduate Research Programs)	2014
Christopher Nevala-Plagemann (medical student)	2014-2015
Will Boyle	2014-2019
Brittany Blazar	2014-2016
Melanie Blazar	2014-2016
Simon Orlovsky	2014
Krzysztof Stankiewicz (Undergraduate Research Opportunities Program)	2013
Christopher J. Perdoni (Medical School Dean's Office Student Research Grant) "Exogenous application of chemokines for enhanced migration and engraftment of transplanted mesenchymal stem cells in recessive dystrophic epidermolysis bullosa. Published: Perdoni C, McGrath JA, **Tolar J**. Preconditioning of mesenchymal stem cells for improved transplantation efficacy in recessive dystrophic epidermolysis bullosa. Stem Cell Res Ther. 2014 Nov 6;5(6):121.	2013-2017
Alex Loeks-Johnson, Medical student, laboratory research project 2015 CTSI Summer Advanced Research Program Scholar	2013-2015
"Genetic repair of the plakoglobin gene in primary patient cells using the CRISPR/Cas9 endonuclease system"	
Rachel Peterson	2013-2014
Madeline Gore (University of Wisconsin – Madison)	2013
Haelee Ahn	2013
Connor Hedstrom	2013
Christopher Simwinga (Life Sciences Summer Undergraduate Research Programs), Med School	2013
Shane R. O'Neil (medical student, laboratory rotation) matched Peds BMT UMN	2013
Lee Meier (medical student, laboratory rotation)	2013
Alexander Leal (summer volunteer, Carleton College)	2013
Alex Maple (Biology Colloquium)	2013
Robalee Kjelland	2012-2013
Beatrice Brumley (Life Sciences Summer Undergraduate Research Programs)	2012-2013
Madison Mack	2012-2013
Kacey Guenther	2012
Roozbeh Assadi-Lamouki (Hopkins HS ProPEL program)	2012-2015

Elizabeth Card (Tufts Career Center Summer Internship Grant) 2011-2016

Meibo W. Chen, Honors thesis, faculty reader 2011-2012

Sean R. Legler (Life Sciences Summer Undergraduate Research Programs) 2011

Nolan Winslow (Life Sciences Summer Undergraduate Research Programs) 2011

Bryce Benda 2011

Evan M. Chen (Wayzata HS student, Finalist Intel Science Talent Search 2012) 2011
"CD24 induced muscular regeneration: Unraveling the mystery behind satellite cell differentiation"

Jill Reynolds 2010-2013

Will Geng, medical student 2010-2011

Dennis Ea, research project director, Medical School, University of Wisconsin - Madison 2009-2013

Daniel Wolbrink, medical student, (co-mentor) 2007
"Transgenesis by Transposition"
Research honors: Minnesota Medical Foundation Award

Undergraduate summa theses or honors projects directed

Sarah (Parker) Atkins, Summa thesis (co-mentor with Bruce Blazar) 2013-2014
Research honors: Howard Hughes Medical Institute Scholarship Award
"Potential of deriving iPSC from peripheral blood T cells using retroviral approach." First Annual CTSI Research Conference: Translating Discoveries into Better Health, University of Minnesota, 2012. Awarded 2012 Research Conference Travel Award to submit abstract and attend 11th Annual International Society for Stem Cell Research Meeting (ISSCR) 2013. 2019 Chief Resident, Internal Medicine, UMN Regions Hospital. 2020 NIH Hematology/Oncology Fellowship.

Katie Rau, Medical student honors thesis 2008
"Impact of bone marrow transplantation on hearing in MPS1 children"

Ning Zhou, Summa thesis Harvard University (advisor) 2005-2007
"Neuropathology of Murine Mucopolysaccharidosis Type 1"

Graduate Student Activities

Master's theses directed

C. Humphrey Pruett, MSc (Primary advisor, Stem Cell Biology Program) "Identifying Senescence in Tissues Affected by Spinocerebellar Ataxia Type 7" 2019-2021

Emily Ward, MSc (Primary advisor, Stem Cell Biology Program) 2014-2016
"Fast, efficient and gentle transfection of human adherent cells"

Kalia Bared, MSc 2012-2013
"Reprogramming T cell lymphocytes to induced pluripotent stem cells"
Laboratory Specialist at Key Biologics, LLC

Master's students advised/committee member/examination committee member

Katelyn Goodman Paz, GCD (Chair of the Examination Committee) 2014-2016
"Immunobiology of chronic graft-versus-host disease"

Ziba Jaberansari, MSc (Examination Committee Member) 2012
"Decellularized lung matrix as a scaffold for mouse lung stem cells"
Operation and Research manager, University of Ottawa, Pelling Lab

Michelle Jeanette Smith, Pediatrics (Examination Committee Member) 2011-2015
"T-cell precursor-based tumor immunotherapy: mechanisms of tumor invasion"
Associate Director of Preclinical Strategy and Business Development, Moderna

Master's and PhD students supervised for laboratory rotation

Angela Bedoya 2019

Melanie Schaecter, PhD, Molecular, Cellular, Developmental Biology and Genetics 2017

Josh Campbell, MSc, Molecular and Cellular Biology 2014

Bryant Keller, MSc, Molecular and Cellular Biology 2014

Kyle Jenger, MS, Engineering 2014

Doctoral dissertations directed

Kacey L (Guenther) Bui, GCD, MD, PhD 2019-present
"Mechanisms of DNA repair in chronic wound healing and dystrophic epidermolysis bullosa."
Awardee: 2021-2022 MSTP Leadership in Diversity Fellowship
Awardee: 2022 UMN CTSI Translational Research and Career Training TRACT TL1 Program
Presenter: "Changes in HMGB2 Localization Mediate Inflammation and Genomic Stability in RDEB-associated Squamous Cell Carcinoma," at the Gordon Research Conference: DNA Damage Mutation & Cancer from DNA Damage, Repair and Replication to Immune Activation and Cancer Therapy, March 2022
Presenter: brief oral abstract, May 2022 Society for Investigative Dermatology Meeting
2023 1F31CA281039 "HMGB1 in EB-Associated Squamous Cell Carcinoma"

Allison Keith Macauley, MCDB&G, PhD 2018-2023
"Chondroitin sulfate proteoglycan 4 increases invasion of recessive dystrophic epidermolysis bullosa-associated squamous cell carcinoma by modifying TGFβ signaling"

Julia Brekke-Riedl, Biomedical Engineering, MD, PhD 2018-2022
"Steps towards understanding cellular therapies for recessive dystrophic epidermolysis bullosa"

Michael J. Pickett-Leonard, MCDB&G; Biomedical Informatics, and Computational Biology 2015-2021
"Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa"
Research honors: 2018 Rare Disease Day Research Award; 2017 Epidermolysis Bullosa Medical Research Foundation Travel Award for Young Investigators; 2017 Medical School 3 Minute Thesis Competition; 2016 Medical School 3 Minute Thesis Competition at the Science Museum.

Catherine A. A. Lee, MCDB&G 2013-2018
"Skin regeneration in humans"
Research honors: Poster presentation "Modeling the blood-brain barrier of adrenoleukodystrophy (X-ALD) patients using directed differentiation of human iPSCs into brain microvasulalar endothelial cells (BMECs)," 2016 ISSCR, San Francisco, CA.
Best Poster Award at the 2016 Genetics, Cell Biology & Development Retreat, Winner of the 2016 MCDB&G retreat poster contest.
T32 Award: Organ Design and Engineering Program (ODET), Harvard University, 2019.

Elizabeth Thompson, MCDB&G (co-mentor) 2013-2017
"iPS cells to study DNA repair"
Research honors: 2018 Rare Disease Day Research Award; 2017Center for Genome Engineering Travel Award; 2017 Medical School 3 Minute Thesis Competition; 2016 Medical School 3 Minute Thesis Competition at the Science Museum, 2016 Recipient of CTSI Travel Award, 2014 UMN CTSI Translational Research Development Program Grant awardee, Chosen Speaker at ACTS Meeting 4/2015.

Michael Vanden Oever, MICaB/Pediatrics 2012-2015
"Gene editing of type VII collagen gene"
Research honors: 2017 Doctoral Research Showcase; Selected to apply for membership in the University of Minnesota Sigma Xi Honor Society; Recipient of the Spring 2016 MICaB Travel Award, University of Minnesota Stem Cell Biology T32 grant trainee; Recipient of a 2016-2017 Doctoral Dissertation Fellowship; 2016 Medical School 3 Minute Thesis Competition at the Science Museum.

Doctoral committees served on

Anh La, CBS Biotechnology Institute 2015-2017
"Applying chemical and physical stimulus to induce MSC differentiation towards endothelial cells"

Matthew Wheelwright, Integrative Biology 2015-2017
"Physiology of use of human induced pluripotent stem cell-derived cardiac myocytes as a model for disease and as a potential therapy for heart failure"

Rachel Edwards, Engineering 2014-2016
"Pancreatic cancer/stem cells/BMT in mice"

Mathew Angelo, Medicine 2014-2016
"Extracellular matrix to improve osteogenic differentiation of human pluripotent stem cells."

Jami Erickson, MCDB&G 2013-2016
"Skin regeneration in mice"

Beau Webber, MCDB&G 2012-2014
"DNA methylation of Runx1 regulatory regions correlates with transition from primitive to definitive hematopoietic potential in vitro and in vivo."

Edward A. Zamora, MICaB/Pediatrics 2011
"The role of NF-κB in the transformation of mesenchymal stem cells to cancer-associated fibroblasts and production of the immune suppressive protein indoleamine-2,3-dioxigenase."

Post-doctoral Fellows Supervised

George Christakopoulos, MD (MD/PhD program) Rotation 2019-2020
2019 ASH Hematology Opportunities for the Next-Generation of Research Scientists (HONORS) Award. 2019 ASH Abstract Achievement Award, 61st ASH Annual Meeting & Exposition, Miami, FL.

Svatava Merkle, MD, rotation 2019-2020
Elizabeth Thompson, PhD, CCRF 2019 Emerging Scientist Award 2017-2020
Kirk Twaroski, PhD, Pediatrics/BMT 2015-2017
Stephanie Rhee, MD, (MD/PhD program) Rotation 2015-2016
Bethany Hart, MD, Maternal-fetal Medicine, three-year project 2014-2016
Beau Webber, PhD, Post-Doctoral Associate, MCDB&G 2014-2016

NAIAD 2021 R21

Ilona (Rousalova) Tietzová, MD, PhD, PROSEK/Fulbright Scholar, Post-Doctoral Associate, Pediatrics, *Mitochondrial metabolism* 2013-2016

Karolina Skvarova Kramarzova, PhD, Post-Doctoral Associate, Pediatrics 2013-2016

Kristina M Kiefer, DVM, Post-Doctoral Associate, Veterinary Clinical Sciences 2013-2016
Canine iPS cells

Jessie L. Barnum, MD, Medical Fellow, Pediatrics, University of Minnesota 2013-2014

Michael Kent, MD, Medical Fellow, Pediatrics, University of Minnesota 2013-2014

Luiz Mantovani, MD, Medical Fellow, Pediatrics, University of Minnesota 2013-2014
Monocytes in wound healing

Dusan Sajic, MD, PhD, Resident, Dermatology, University of Toronto 2013-2014

Timothy A. Livett, MD, University of Minnesota 2013-2014

Gabriela Petrof, MD, Institute of Child Health, London, UK 2013
EB biomarkers

Caitlin Sanstead, MD, Medical Resident, Pediatrics, University of Minnesota 2013
Outcome of HCT in dyskeratosis congenita

Holger Fey, PhD, Postdoctoral Research Associate, Department of Medicine, Division of Hepatology, University of Illinois at Chicago 2013
Induced keratinocytes

Michael Weinreich, MD, PhD, Medical Resident, Medical Scientist Training Program, University of Minnesota 2012-2013
Autoimmunity in epidermolysis bullosa

Rhamy Nagib, MD, Postdoctoral Research Associate, St. Jude Children's Research Hospital 2012
Use of activated factor VII in diffuse alveolar hemorrhage

Heather Podgorski, MD, Assistant Professor, Pediatrics, University of Minnesota; Physician, Neonatology, UMN Masonic Children's Hospital 2010-2013
Candida in neonatal sepsis

Jurat Rajpal, MD, Physician, Pediatric Nephrology, Advocate Medical Group, Park Ridge, IL 2010-2013
Renal failure after hematopoietic stem cell transplant

Andrew Dietz, MD, Assistant Professor, Pediatrics, Hematologic Malignancies Program, University of California – San Diego; Staff physician, Rady Children's Specialists, CA 2010-2012
Disease-specific hematopoietic cell transplantation: nonmyeloablative conditioning regimen for dyskeratosis congenita

Jill Beck, MD, Staff Physician, Children's Specialty Physicians, Specialty Pediatric Center, Omaha, NE; Assistant Professor, Division of Hematology/Oncology, University of Nebraska Medical Center 2010-2011
Response of refractory immune thrombocytopenia after bone marrow transplantation to romiplostim

Charles Shepard, MD, Assistant Professor, Pediatrics, University of Minnesota 2008-2014
Outcome of surgical correction of congenital heart defect

Leslie Smith, MD 2008-2011

Erin Seiberlich, MD, Staff Physician, Central Pediatrics, PA, St. Paul, MN 2008
Cord blood transplantation in nonmalignant diseases

Caridad Martinez, MD, Assistant Professor, Pediatric Bone Marrow Transplant, Texas Children's Hospital, Baylor College of Medicine, Houston, TX 2007-2008
Hypercalcemia in osteopetrosis

Troy Lund, MD, PhD, Assistant Professor, Pediatrics, University of Minnesota; Physician, Blood and Marrow Transplantation, UMN Masonic Children's Hospital 2006-2009
Hematopoietic stem cell development in zebrafish, Pediatrics Research, Education, and Scholarship Symposium (PRESS) Awardee

Rich Tower, MD 2005-2008

Visiting Scholars Hosted

Zeynep Cegniz, FATİH ÜNIVERSİTESİ, Istanbul, Turkey 2015

Christos Georgiadis, PhD candidate University College London, United Kingdom 2012-2013
Bogue Fellowship to investigate models of skin gene therapy in epidermolysis bullosa

Shadowed in Clinic or Hospital

Luboslav Dimitrov 2019

Valencia Owens, Robyn Lipschultz, Julia Riedl, Charles Humphrey Pruett 2017

Jeremy Yeung, Christopher Fuguet, Madeline Gore, Christopher Leland, Emily Woska, Huyen Nguyen, Valencia Owens 2016

Paola Caballero-Léon, Pavithra Ramakrishnan, Risha Manda 2015

Jennifer Lu, Leah Anderson, Ilona Rousalova, Christopher Bays, Sarah Rudasill 2014

Kerri Haider, Christopher Simwinga, Madison Mack, Alex Leal, Christos Georgiadis 2013

Sarah Parker, Roozbeh Assadi-Lamouki, Elizabeth Card, Lee Meier, Beatrice Brumley 2012

Sean Legler, Jill Reynolds, Dennis Ea 2011

Faculty Mentored

Christen L. Ebens, MD, MPH, Pediatric Blood and Marrow Transplantation, co-mentor 2019-present
Summer 2019 UMN CTSI KL2 Scholar: *Epidermolysis Bullosa: Characterizing and targeting immune dysfunction:* Stage 2 Progressive Grant Squamous Cell Carcinoma in Recessive Dystrophic Epidermolysis Bullosa

Varvara Kirchner, MD, Department of Surgery, co-mentor 2017-2022
Asan-Minnesota Institute for Innovating Transplantation (AMIT) grant with Asan Medical Center, Government of South Korea

2021 NIA K08 *The effect of donor age on the function and therapeutic efficacy of human hepatocyte-like cells*

Reagan Hunt, MD, PhD, Texas Children's Hospital, Houston, TX (PeDRA Mentorship Program) 2016-2018

Linda McLoon, PhD, Ophthalmology, mentor 2016-2019

Andrew Grande, MD, Neurosurgery, co-mentor 2014-present
Spring 2018 UMN CTSI KL2 Scholar: *Repairing the brain after stroke - neuroregenerative therapy in a canine model of stroke*

Mark Osborn, PhD, Pediatrics, mentor 2013-present

James Dutton, PhD, Genetics and Cell Biology, mentor 2013-2019

Ann Parr, MD, PhD, Neurosurgery, co-mentor, member oversight committee 2013-2018
Spring 2014 UMN CTSI KL2 Scholar: *Autologous Oligodendrocyte Progenitor Cells for Transplantation in Spinal Cord Injury*

Karen Echeverri, PhD, Genetics and Cell Biology, co-mentor 2013-2018

Gufa (Kevin) Lin, PhD, Genetics and Cell Biology, co-mentor 2013-2018

Anannya Banga, PhD, CSENG Biomedical Engineering 2013-2016

Amy Linaberry, M.P.H., PhD, tenure track mentor 2012-2016

Heather Stefanski, MD, PhD, Pediatrics, tenure track mentor 2010-2014

CLINICAL SERVICE

Clinical Leadership Accomplishments

Top Doctor, Casrle Connolly	2025
100 Most Influential Healthcare Leaders 2024 (MN Physician)	2024
Top Doctors, *Minneapolis/St. Paul Magazine*	2015-2024
Best Doctors in America, BestDoctors.com	2015, 2017-2018
Super Doctors, SuperDoctors.com	2012-2015
"Who is your Superhero?" University of Minnesota Amplatz Children's Hospital	2012

Clinical Service Responsibilities

Staff Physician, Pediatrics, Pediatric Hematology/Oncology, Blood and Marrow Transplantation, M Health Fairview Masonic Children's Hospital

Four weeks inpatient attending each year	2003-2017
Four weeks outpatient attending each year.	2003-2017

Staff Physician, Journey Clinic, M Health Fairview Masonic Children's Hospital

One clinic per week, 50 weeks each year.	2003-present

PROFESSIONAL SERVICE AND PUBLIC OUTREACH

Service to the Discipline/Profession/Interdisciplinary Areas

Editorial Board Member

Blood Advances	2016-present
Journal of Stem Cell Research & Therapeutics	2015-2017
Transplantation, Associate Editor	2014-2016
American Journal of Dermatology	2013-present
PLoS ONE, Associate Editor	2012-present
F1000Prime, Regenerative Medicine Section	2012-present
Advances in Hematology Guest Editor, special issue "Mesenchymal Stromal Cells Insights: Prospects in Regenerative Medicine in Hematology"	2011-2013
Faculty of 1000, Non-Hematopoietic Stem Cells Evaluation Board	2010-present
Biology of Blood and Marrow Transplantation	2010-2018
Pediatric Blood & Cancer	2009-2016
World Journal of Stem Cells	2009-2013
Bone Marrow Transplantation	2008-2014
Journal of Clinical Rehabilitative Tissue Engineering Research	2007-2010

Scientific Journal Reviewer

American Journal of Hematology

American Journal of Medical Genetics
Annals of Neurology
Basic & Clinical Pharmacology & Toxicology
Biology of Blood and Marrow Transplantation
BioMed Central Clinical Pathology
BioMed Central Immunology
Blood
Bone Marrow Transplantation
British Journal of Dermatology
Cell Biology International
Cell Stem Cell
Cell Transplantation
Current Medical Literature: Lysosomal Storage Diseases
Current Stem Cell Research & Therapy
Cytotherapy
Dove Medical Press
Experimental Dermatology
Experimental Hematology
FASEB
Genetics and Molecular Biology
Haematologica
Hematological Oncology
HUGO Journal, The
International Journal of Experimental Pathology
International Scholarly Research Network (ISRN) Stem Cells
Journal der Deutschen Dermatologischen Gesellschaft
Journal of Cellular and Molecular Medicine
Journal of Clinical Investigation
Journal of Heart Valve Disease
Journal of Pediatric Hematology/Oncology
Leukemia Journal, The
Molecular Therapy
Nature Protocols
New England Journal of Medicine
Oncogene
Pathobiology
Pediatric Blood and Cancer
Pediatric Health
Pediatrics
PLOS
Proceedings of the National Academy of Sciences

Stem Cells

Stem Cells and Development

Scientific Reviewer – NIH Study Sections

NHLBI Board of Scientific (BSC) Site Visit Review: Neal Young, MD	2019
NIH Arthritis, Connective Tissue, and Skin Study Section (ACTS)	2016-2017
NIH Molecular and Cellular Hematology Study Section (2014/06 MCH)	2014
NIH Transformative Research Award (ZRG1 BCMB-A [51] R)	2014
NIAMS Dermatology Special Emphasis Panel (ZRG1 MOSS-Q [02]S)	2013
NIH Molecular and Cellular Hematology Study Section (2013/05 MCH)	2013
NIH Clinical Trial Implementation Cooperative Agreement (U01) Review Committee (ZAI1-JTS-I-M2)	2012
NIH Cell, Computational, and Molecular Biology IMST – Small Business Review Panel (ZRG1 IMST-[J] 15)	2011, 2013
NIAID Investigator-Initiated Program Project (Viruses and Immunity) P01 Review Committee	2011

Scientific Reviewer – Other Study Sections

SRA International, Peer Reviewed Medical Research Program on the Preapplication (epidermolysis bullosa)	2018
Stiftung Charite [Berlin Institute of Health Johanna Quandt (endowed) Professorships]	2016
S.C.O.R.E.S., NYSTEM Reviewer, Translation, Engineering and Technology Panel	2016
Fondazione Telethon Grant Study Section	2016-2018
CCRM and OSCI External Scientific Advisory Board Annual Review, Toronto, Canada	2014
United States - Israel Binational Science Foundation	2014
S.C.O.R.E.S., NYSTEM Study Section, Chair	2014
Leukaemia & Lymphoma Research, site visit for MRC Center for Regenerative Medicine, Institute for Stem Cell Research, University of Edinburgh, UK	2013
Austrian Science Fund (FWF) (epidermolysis bullosa/gene therapy)	2012
UK Medical Research Council (molecular therapy)	2012
European Science Foundation (mesenchymal stem cells)	2012
National Institutes of Health and Italian Ministry of Health, Directorate for Health and Technologies Grant Reviewer	2009-2018
US Army Medical Research and Materiel Command Congressionally Directed Medical Research Programs Bone Marrow Failure Research Program	2009

Grant Reviewer

Research Council UK	2018
Medical Research Council	2017
King's Health Partners Challenge Fund, King's College London	2017
Seed Grants, LA BioMed/Harbor UCLA	2017
Czech Health Research Council	2016
National Institute of Health, Special Emphasis Panel/Scientific Review Group 2016/10 ZRG1 VH-B (02) M	2016

Shriners International	2016
Medical School/University of Minnesota Foundation Grants	2016
American Association for the Advancement of Science (AAAS) Review Panel for Connecticut Regenerative Medicine Research Fund	2016
German Federal Ministry for Education and Research (BMBF), Translational Consortia for Rare Disease Research	2014
Wallin Foundation Grants	2014
American Institute of Biological Sciences (AIBS)/New York Stem Cell (NYSTEM), Panel Chair	2014
MNDrive Grants	2014
American Institute of Biological Sciences (AIBS)/New York Stem Cell (NYSTEM)	2013
E-Rare (ERA-Net on Rare Diseases) European Research Projects on Rare Diseases driven by Young Investigators Funding Initiative	2012
Review Panel for Minnesota Medical Foundation Grants	2011-2013
Masonic Cancer Center Brainstorm Awards	2010-2011
Rein in Sarcoma Grants	2010-2011
American Cancer Society Institutional Research Grant	2008-2016
Fanconi Anemia Research Fund	2007-2018
Academic Health Center Seed/Bridge Grants	2007-2017

Abstract Reviewer

Society of Investigative Dermatology Annual Meeting	2013
American Society of Hematology Annual Meeting	2006, 2010, 2011
American Society of Pediatric Hematology/Oncology Annual Meeting	2007
International Society for Experimental Hematology Scientific Meeting	2006

Organizer of Conferences, Workshops, Panels, Symposia

Montagna Symposium on the Biology of the Skin (program chair)	2017
International Fanconi Anemia Gene Therapy Working Group (organizer, volunteer chair)	2010-present

Public advocacy

Governor Timothy Walz' Task Force on Academic Health at the University of Minnesota	2023-2024
"Healthy People, Healthy Planet – Wellness and Well Being for All." Advocacy on behalf of the state of Minnesota and the city of Bloomington in their bid for the World EXPO 2027. • Update on the first specialized EXPO, June 20, 2022, **Paris, France.** • "Why Healthy People, Health Planet," panelist, October 10, 2022, **Minneapolis, MN**. • "The U.S. vision for EXPO 2027: A global gathering for health," keynote speaker, March 30, 2023, **Paris, France**.	6/20/2022-3/30/2023
"Regenerative Medicine for Rare Disorders," Minnesota Rare Disease Day at the Capitol, **St. Paul, MN.**	3/10/2016
SF 1692 "Regenerative Medicine Research Activities Appropriation," State Senate Higher Education and Workforce Development Budget Division Meeting, **St. Paul, MN**.	4/7/2015
"Regenerative Medicine Congressional Briefing," Medical Technology Caucus Briefing, **Washington, DC**.	11/12/2014

SF 1791 "Establishing the Minnesota Regenerative Medicine Research Institute," State Senate Committee Hearing on Higher Education and Workforce Development, **St. Paul, MN**. 3/18/2014

Evidence Review Workgroup: Krabbe Disease, Secretary of the Health and Human Services Advisory Committee on Heritable Disorders in Newborns and Children, **Washington, DC**. 9/25/2009

Service to the University/Medical School/Department

University-wide Service

Board of Regents Special Committee on Academic Health	2023-present
Institute on the Biology of Aging and Metabolism member	2020-present
Campus Public Health Officer	2018-present
Office of Academic Clinical Affairs Executive Committee	2018-present
President's Cabinet	2017-present
Senior Leadership Team	2017-present
Budget 5 and Capital Budget Committee	2017-present
System-wide Strategic Planning Oversight Committee	2017-present
Board of Directors, Fairview Health Services	2017-present
Clinical and Translational Science Institute Career Panel	2016
Office of the Vice President for Research "Big Thoughts Discussion" Brainstorming Session	2016
Office of the Vice President for Research Marketing Team Meetings	2016-2018
Grand Challenge Research Working Group, "Advancing Health Through Tailored Solutions"	2016-2017
Advancing Human Research Protection, Research Compliance Advisory Committee Community Oversight Board Scientific Review of Studies Cultivating a Culture of Ethics	2015-2017
Planning Committee: Research Ethics Conference 2017	2015-2017
Medical School Representative to University Senate (elected)	2015-2016
Representative to Medical School Faculty Advisory Council	2015-2018
Research Compliance Advisory Committee of the Vice President (OVPR)	2015-2017
Campus Strategic Plan Continuity Team of the Provost	2015-2017
Strategic Plan Executive Steering Committee of the Vice-President for Research	2014-2017
Center for Immunology member	2014-present
Regenerative Medicine Minnesota Board, Co-Chair Minnesota State Legislature-funded $4,350,000 annual research grant program	2014-2019
Minnesota Health Strategic Planning Workgroup	2014
Institute for Engineering in Medicine member	2013-present
Basic Science Council	2013-present
Strategic Planning Workgroup of the Provost, Presidentially-appointed position	2013-2014
Academic Health Center Strategic Plan Steering Committee	2013
Clinical and Translational Science Institute: Project Development Team, Office of Discovery & Translation: "Therapeutic Approaches for Duchenne Muscular Dystrophy using iPS Cells"	2012-2015
Lillehei Heart Institute member	2012-present
Paul and Sheila Wellstone Muscular Dystrophy (MD) Center member	2012-present
Stem Cell Institute member	2005-present

University of Minnesota Medical Reserve Corps	2005-present
Masonic Cancer Center member	2003-present

Medical School Service

Clinical Science Council	2017-present
Clinical Research Support Center Steering Committee	2017-present
Chainbreaker Scientifc Steering Committee	2017-2018
University of Minnesota Physicians, Board Chair	2017-present
Mouse Genetics Internal Advisory Committee	2017-present
Medical Executive Committee	2017-present
MHealth Research Committee	2017-present
Research Compliance Advisory Committee	2017-present
Search Committee for Fairview Medical Center Hospital Head Search	2017
Search Committee for Surgery Head	2017
M Health Integration Work Team, member	2016
M Health Discovery Showcase	2016
Precision Medicine and Health Consortium	2016
Research Integration Working Committee of the Faculty Affairs Committee	2015
Faculty Affairs Committee	2015-2017
Hematology Translational Working Group	2014-2017
Search Committee of Department of Medicine Head	2014
Review Panel for Medical School Interdisciplinary Centers	2012
Medical School Research Council	2011-2018
Bone Marrow Failure Site Team (chair)	2009-2018
Pediatric Hematology, Oncology, Blood and Marrow Fellowship Committee	2008-2018
Infectious Disease Committee	2007-2018

Department of Pediatrics Service

Pediatric Fellows “Get a Job” Panel	2017
Pediatric Research Strategic Group	2016
Co-organized two Town Hall Meetings	2015
Department of Pediatrics Post-Tenure Review Committee	2013-2017
Leader, Research Focus Group for the Department Strategic Plan	2012-2017
Department of Pediatrics Fellowship Oversight Committee	2010-2011
Department of Pediatrics Tenure Track Committee	2010-2014
4th Annual Pediatric Research, Education and Scholarship Symposium (PRESS) judge	2010, 2005
Search Committee for Attending Physician position in Pediatric BMT	2006-2015
Search Committee for Fellow position in Pediatric ICU	2006
Search Committee for Attending Physician position in Pediatric ICU	2006
Margaret Kendrick Hostetter MD Award for Research in Pediatric Subspecialty Training judge	2005
Residency Program Interviewer	2004-2013

Other Service

Co-chair, First 1,000 Days Taskforce, Itasca Project.	2019-present

Pediatric Dermatology Research Alliance (PeDRA) Mentorship Program	2016
"Mechanisms of squamous cell carcinoma development in patients with recessive dystrophic epidermolysis bullosa." Presentation for potential MSCB Program students with Michael Pickett-Leonard, Minneapolis.	2015
CTSI Annual Meeting poster mentor and judge	2015-2016
CTSI Annual Meeting poster reviewer	2014
Itasca Orientation for incoming graduate students in Biological Sciences	2013
Medical Scientist Training Program (MD/PhD) applicant interviewer	2012-2017
Molecular, Cellular and Structural Biology (MCSB) applicant interviewer	2012-2017
Microbiology Immunology and Cancer Biology Program (MICaB) applicant interviewer	2011-2017
Molecular, Cellular, Developmental Biology & Genetics (MCDB&G) applicant interviewer	2011-2017

Community Outreach Activities

DNA Workshop for Nett Lake Elementary students at University of Minnesota Medical School, Duluth	2017
Host and organizer of the Minnesota state visit of the Prime Minister of the Czech Republic and the Czech Ambassador to the United States	2016
Lecture to Biomedical Program, Coon Rapids High School, Coon Rapids, Minnesota	2015
2015 Midwest Epidermolysis Bullosa Picnic, Elk Grove Village, Illinois	2015
CCCTAA (Clinical Care Consortium for Telomere Associated Ailments) National Consortium Founding Member, patient information meeting contributor for research and care of patients with telomere disorders	2014-present
Annual Epidermolysis Bullosa Patient Care Conferences organized by DebRA	2011-present
Biennial Fanconi Anemia Research Fund Camp, Camp Sunshine, Maine	2005-present
Biennial Dyskeratosis Congenita Outreach Camp, Camp Sunshine, Maine	2005-present