

## University of Minnesota Curriculum Vitae

**TROY C. LUND**  
**MMC 366**  
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**Minneapolis, MN 55455**  
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### Education

Fellowship in Hematology/Oncology University of Minnesota	2006 - 2009
Residency in Pediatrics University of Minnesota	2003 - 2006
MD, University of Minnesota	2002
PhD, University of South Florida Major: Medical Sciences Advisor: P Medveczky, R A Good Ph.D. with Distinction [Top 5%]	1996
MSMS, University of South Florida Major: Medical Sciences	1994
BS, <i>Cum laude</i> , University of Minnesota Major: Biology	1991

### Licenses and Certifications

American Board of Pediatric Hematology/Oncology Certification	2011 - Present
American Board of Pediatrics Certification	2007 - Present
DEA Registration	2002 - Present
State of Minnesota Medical License	2002 - Present

### Academic Appointments

Associate Professor (Tenured) University of Minnesota Medical School Twin Cities Campus, Department of Pediatrics, Division of Blood and Marrow Transplantation	2016 - Present
Associated Faculty Member-Global Health Focus University of Minnesota Medical School Twin Cities Campus, Department of Pediatrics, Global Pediatrics Program	2011 - Present
Assistant Professor University of Minnesota Medical School Twin Cities Campus, Department of	2009 - 2016

Pediatrics, Division of Blood and Marrow Transplantation

**Academic Administrative Appointments**

Fellowship Director Department of Pediatrics, Division of Blood and Marrow Transplantation & Cellular Therapy	July 2022 - Present
Graduate Faculty Veterinary Medicine, Comparative and Molecular Biosciences	May 2020 - Present

**Clinical/Hospital Appointments**

Attending Physician University of Minnesota Masonic Children's Hospital and Journey Clinic	2002 - Present
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**Outreach**

Medical & Scientific Advisory Council Member, Non-Profit, Sisters' Hope	June 1, 2023 - Present
ALSP Patient Journey Workshop	January 25, 2023 - Present

**Current Membership in Professional Organizations**

Stop Kernicterus in Northern Nigeria Consortium (SKINN Consortium)	2017 - Present
Society for Pediatric Research	2015 - Present
American Chemical Society	2009 - Present
American Society for Blood and Marrow Transplantation	2006 - Present
American Academy of Pediatrics International Child Health Section	2003 - Present
American Academy of Pediatrics Section on Hematology and Oncology	2003 - Present
American Association for the Advancement of Science	1998 - Present
American Society of Hematology	1998 - Present

**HONORS AND AWARDS FOR RESEARCH WORK, TEACHING, PUBLIC ENGAGEMENT,  
AND SERVICE**

**University of Minnesota**

Basic Science Paper of the Year (Associate/Full Professor), "2022 Julie Ross Faculty Recognition Awards", Medical School Department of Pediatrics <i>An irradiated marrow niche reveals a small noncollagenous protein</i>	February 2, 2022
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<i>mediator of homing, dermatopontin. Blood Advances</i>	
1st Place Outstanding Achievement in Research by Fellow/Margaret Kendrick Hostetter Award	2009
1st Prize Outstanding Achievement in Research by Fellow/Margaret Kendrick Hostetter Award	2007
Department of Medicine Research Day - Best Medical Student Poster	2002
Spink International Scholarship, International Medical Education and Research Program	2001
Dr. Garth Englund Scholarship MMF Verndon D.E. Scholarship	2000

### External Sources

Minneapolis-St. Paul 2022 Top Doctor, Minneapolis-St. Paul Magazine	2022
ASH Bridge Grant Award, American Society of Hematology	2019
Butterfly Award for Outstanding Medical Research, Children's Cancer Research Fund	2014
ASH Scholar Award, American Society of Hematology	2012
New Investigator Award, American Society of Blood and Marrow Transplantation	2011
American Academy of Pediatrics International Travel Award To establish G6PD testing in Kampala, Uganda.	2006
International Medical Education Resource (IMER) Scholarship for the International Health Medical Education Consortium (IHMEC) meeting in Havana, Cuba	2002
International Graduate & Professional Scholarship	2001
International Travel Award from China Board of New York - to attend "Human Rights and Research - An International Perspective" conference in Kunming, China	2001
Medical Research Council Laboratory, The Gambia, West Africa developed a PCR protocol to detect HIV-1/HIV-2 from dried blood spots collected in the field	2001

### RESEARCH AND SCHOLARSHIP

#### Awards and Projects Routed through Sponsored Projects Administration (External Sources)

##### Current:

- Award: Mayo / UMN Partnership in Regenerative Medicine**  
 Principal Investigator: Bischof, John C.  
 Sponsoring Organization Reference ID: ML2021 Chap.2 Art.1 Sec.7 Subd.2(e) FY22  
 Status: Accepted  
 Sponsoring Organization: STATE OF MINNESOTA  
 Award Dates: July 1, 2021 - June 30, 2026

**Project: Peroxisome Transfer Enables Bo**  
 Project Team: **Lund**, Troy, C. (Principal)  
 Status: Approved  
 Project Dates: March 1, 2022 - March 1, 2024

2. **Award: Analysis of long-term somatic and functional outcomes of hematopoietic cell transplantation (HCT) for alpha-mannosidosis, with consideration of prospects for gene therapy**

Principal Investigator: Eisengart, Julie

Status: Accepted

Sponsoring Organization: INTL SOCIETY FOR MANNOSIDOSIS & RELATED

Award Dates: September 1, 2023 - August 31, 2025

**Project: Analysis of long-term somatic and functional outcomes of hematopoietic cell transplantation (HCT) for alpha-mannosidosis, with consideration of prospects for gene therapy**

Project Team: **Lund**, Troy, C. (Co-Investigator), Yund, Brianna, D. (Co-Investigator), Eisengart, Julie (Principal)

Status: Approved

Project Dates: September 1, 2023 - August 31, 2025

3. **Award: Engineered B Cells as a Universal Platform for the Treatment of Enzymopathies**

Principal Investigator: Moriarity, Branden S.

Sponsoring Organization Reference ID: 1R01AI146009-1A1

Status: Accepted

Sponsoring Organization: NIH National Institute of Allergy & Infectious Diseases

Award Dates: March 1, 2020 - February 28, 2025

Funded Amount for Entire Grant Period: \$250,000.00

Percent Effort: 3%

4. **Award: Newborn Iron Deficiency**

Principal Investigator: Georgieff, Michael K.

Sponsoring Organization Reference ID: 5R01HD094809-05

Status: Accepted

Sponsoring Organization: NIH National Institute of Child Health/Human Development

Award Dates: August 13, 2018 - July 31, 2024

Funded Amount for Entire Grant Period: \$250,000.00

Percent Effort: 2%

5. **Award: Dose Optimization of Nervonic Acid-a Potential Therapy to Alleviate Disease Progression in Adrenoleukodystrophy**

Principal Investigator: Kartha, Reena V.

Sponsoring Organization Reference ID: 5R21TR003941-02 REVISED

Status: Accepted

Sponsoring Organization: NIH NAT'L CTR FOR ADVANCING TRAN SCIENCE

Award Dates: July 1, 2021 - May 31, 2024

**Project: Dose Optimization of Nervonic Acid-a Potential Therapy to Alleviate Disease Progression in Adrenoleukodystrophy**

Project Team: **Lund**, Troy, C. (Co-Investigator), Kartha, Reena, V. (Principal)

Status: Approved

Project Dates: July 1, 2021 - May 31, 2024

6. **Award: Optimizing Benefits While Minimizing Risks of Iron in Malaria-Endemic Areas**

Principal Investigator: Cusick, Sarah  
Sponsoring Organization Reference ID: 5R01HD092391-05  
Status: Accepted  
Sponsoring Organization: NIH  
Award Dates: July 5, 2018 - May 31, 2024  
Funded Amount for Entire Grant Period: \$449,419.00  
Percent Effort: 7%

- 7. Award: A Phase 2 Study of Lenti-D Drug Product After Myeloablative Conditioning Using Busulfan and Fludarabine in Subjects 17 Years of Age with Cerebral Adrenoleukodystrophy (CALD)**  
Project Investigators: **Lund**, Troy C. (Co-Investigator, 2%), Orchard (Principal)  
Status: Funded  
Sponsoring Organization: Bluebird Bio, Inc.  
Award Dates: February 1, 2019 - January 31, 2024  
Percent Effort: 2%

**Pending:**

- 1. Proposal: Treatment of protein deficiencies using long lived memory T cells**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)  
Date Submitted: October 3, 2023
- 2. Proposal: National Adrenoleukodystrophy (ALD) Registry**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: ASSOC OF PUBLIC HEALTH LABORATORIES  
Date Submitted: October 19, 2023
- 3. Proposal: Administrative Supplement to Optimizing Benefits While Reducing Risks of Iron in Malaria-Endemic Areas (R01HD092391)**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)  
Date Submitted: May 26, 2023
- 4. Proposal: Efficacy and Pharmacokinetics of Nervonic Acid in Adrenoleukodystrophy**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)  
Date Submitted: September 28, 2023
- 5. Proposal: The Immune System and Inflammation in Mucopolysaccharidosis**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)  
Date Submitted: September 29, 2023

6. **Proposal: Engineered CD4 Memory T cells as a Platform to Treat Enzymopathies**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: KOMMODO THERAPEUTICS LLC  
Date Submitted: August 30, 2023
7. **Proposal: Peroxisomal regulation of immune cell inflammatory vigor**  
Role: Principal  
Status: Submitted  
Sponsoring Organization: CINCINNATI CHILDREN'S HOSPITAL MED CTR  
Date Submitted: June 2, 2023
8. **Proposal: Latitude, vitamin D, and UV exposure as determinants of brain lesions in boys with ALD**  
Role: Principal  
Status: Submitted  
Sponsoring Organization: STANFORD UNIVERSITY  
Date Submitted: February 7, 2023
9. **Proposal: Engineered CD4 Memory T cells as a Platform to Treat Enzymopathies**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: KOMMODO THERAPEUTICS LLC  
Date Submitted: December 29, 2022
10. **Proposal: Reshaping the Sarcoma Microenvironment to Awaken Anti-Tumor Immunity**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: U.S. DEPARTMENT OF DEFENSE  
Date Submitted: September 1, 2022
11. **Proposal: Engineered CD4 Memory T cells as a Platform to Treat Enzymopathies**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: KOMMODO THERAPEUTICS LLC  
Date Submitted: September 1, 2022
12. **Proposal: Lentiviral Gene Therapy for MPS IVA**  
Role: Co-Investigator  
Status: Submitted  
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)  
Date Submitted: June 14, 2022

**Past:**

1. **Award: Nervonic Acid-a Potential Therapy to Alleviate Disease Progression in Adrenoleukodystrophy**  
Principal Investigator: Kartha, Reena V.  
Status: Accepted  
Sponsoring Organization: LIGAND PHARMACEUTICALS INC

Award Dates: May 1, 2021 - October 31, 2023

**Project: Nervonic Acid-a Potential Therapy to Alleviate Disease Progression in Adrenoleukodystrophy**

Project Team: Lund, Troy, C. (Co-Investigator), Cloyd III, James, C. (Co-Investigator), Kartha, Reena, V. (Principal)

Status: Approved

Project Dates: May 1, 2021 - October 31, 2023

2. **Award: Safety and efficacy of Nov340 delivery of SaRNA in treating MPS I disease**

Principal Investigator: Whitley, Chester B.

Status: Accepted

Sponsoring Organization: MINA THERAPEUTICS LTD

Award Dates: May 1, 2021 - April 29, 2023

**Project: Safety and efficacy of Nov340 delivery of SaRNA in treating MPS I disease**

Project Team: Lund, Troy, C. (Co-Investigator), Whitley, Chester, B. (Principal), Orchard, Paul, J. (Co-Investigator), Ou, Li (Co-Investigator)

Status: Approved

Project Dates: May 1, 2021 - April 29, 2023

3. **Award: Mayo Partnership in Regenerative Medicine**

Principal Investigator: Tolar, Jakub

Sponsoring Organization Reference ID: ML 2017, Chap 89, Art 1, Sec(4b) RegenMe

Status: Closed

Sponsoring Organization: Minnesota Regenerative Medicine

Award Dates: July 1, 2017 - September 30, 2022

Projects:

Accelerating Hematopoietic Cell Regeneration; Percent Effort: 1%

Medical Student Summer Research; Percent Effort: 5.67%

4. **Award: Transposon Engineered B Cell Therapy for Hunter Syndrome**

Principal Investigator: Belur, Srilalitha R.

Sponsoring Organization Reference ID: 1

Status: Closed

Sponsoring Organization: IMMUSOFT CORPORATION

Award Dates: September 30, 2020 - September 29, 2022

**Project: Transposon Engineered B Cell Therapy for Hunter Syndrome**

Project Team: Lund, Troy, C. (Co-Investigator), Belur, Srilalitha, R. (Principal)

Status: Approved

Project Dates: September 30, 2020 - September 29, 2022

5. **Award: Data on outcomes with allogenic haematopoietic stem cell transplants in Mucopolysaccharidosis type I**

Principal Investigator: Orchard, Paul J.

Status: Accepted

Sponsoring Organization: ORCHARD THERAPEUTICS

Award Dates: September 9, 2020 - May 6, 2022

**Project: Data on outcomes with allogenic haematopoietic stem cell transplants in Mucopolysaccharidosis type I**

Project Team: Lund, Troy, C. (Co-Investigator), Orchard, Paul, J. (Principal), Miller, Bradley, S. (Co-Investigator), Eisengart, Julie (Co-Investigator)  
Status: Approved  
Project Dates: September 9, 2020 - May 6, 2022

**6. Award: Murine Studies of AAV Mediated Gene Therapy for Mucopolysaccharidosis**

Principal Investigator: McIvor, Riley S.  
Sponsoring Organization Reference ID: PO 518879  
Status: Closed  
Sponsoring Organization: REGENXBIO Inc.  
Award Dates: November 30, 2018 - April 30, 2022  
\$206,494 (Direct to date)  
Percent Effort: 6.6%

**7. Award: Bluebird Bio Biomarker Testing Associated with ALD-102 and ALD-103 Clinical Trials**

Principal Investigator: **Lund**, Troy C.  
Sponsoring Organization Reference ID: ALD-102 and ALD-103  
Status: Closed  
Sponsoring Organization: Bluebird Bio, Inc.  
Award Dates: August 1, 2013 - December 31, 2021  
Funded Amount for Entire Grant Period: \$319,251.00  
Percent Effort: 15%

**8. Award: Mayo Partnership in Regenerative Medicine**

Principal Investigator: Tolar, Jakub  
Sponsoring Organization Reference ID: SF5, Art 1, Sec 5, Subd 4(b)  
Status: Closed  
Sponsoring Organization: State of Minnesota  
Award Dates: July 1, 2015 - September 30, 2021  
Funded Amount for Entire Grant Period: \$57,375.00  
Project: Pilot Program in Regenerative Medicine Research for Medical Students; Percent Effort: 10%

**9. Award: Sleeping Beauty Engineered B Cells for Mucopolysaccharidosis**

Principal Investigator: McIvor, Riley S.  
Sponsoring Organization Reference ID: R44-GM115192  
Status: Accepted  
Sponsoring Organization: Immusoft Corporation (NIH/NIGMS Prime)  
Award Dates: September 5, 2018 - August 31, 2021  
Funded Amount for Entire Grant Period: \$140,455.00

**Project: Sleeping Beauty Engineered B C**

Project Team: **Lund**, Troy, C. (Principal)  
Status: Approved  
Project Dates: September 1, 2019 - August 31, 2021

**10. Award: Mayo Partnership in Regenerative Medicine**

Principal Investigator: Tolar, Jakub  
Sponsoring Organization Reference ID: PChap 69, Art 1, Sec 5, Subd 4 (b), FY17



Status: Closed

Sponsoring Organization: State of Minnesota

Award Dates: July 1, 2016 - June 30, 2021

Funded Amount for Entire Grant Period: \$52,927.00

Project: Medical Student Summer Research Program in Regenerative Medicine – Pre-T35; Percent Effort: 5.76%

11. **Award: MT2013-22: A Phase 2/3 Study of the Efficacy and Safety of Hematopoietic Stem Cells Transduced with Lenti D Lentiviral Vector for the Treatment of Childhood Cerebral Adrenoleukodystrophy (CCALD)**

Principal Investigator: Orchard, Paul J.

Sponsoring Organization Reference ID: Protocol ALD-102

Status: Accepted

Sponsoring Organization: Bluebird Bio, Inc.

Award Dates: August 1, 2013 - June 30, 2021

Amount of Direct Cost for Entire Grant Period: \$237,497.00

Project: Biomarker Study Under MT2013-22; Percent Effort: 13.1%

12. **Award: Systemic Gene Therapy for Mucopolysaccharidosis Type 1**

Project Investigators: **Lund**, Troy C. (Co-Investigator, 5%), McIvor (Principal)

Status: Funded

Sponsoring Organization: NIH

Award Dates: April 1, 2019 - March 31, 2021

Percent Effort: 5%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$150,000.00

13. **Award: Revealing the Mechanisms and Physiology of Peroxisome Transfer in Stem Cell Therapy**

Principal Investigator: **Lund**, Troy C.

Sponsoring Organization Reference ID: 5R21OD027047-02 Revised

Status: Closed

Sponsoring Organization: NIH Office of the Director

Award Dates: April 1, 2019 - February 28, 2021

Funded Amount for Entire Grant Period: \$150,000.00

Percent Effort: 14%

14. **Award: Understanding the Mechanisms of Cellular Homing and Changes in the Marrow Niche**

Principal Investigator: **Lund**, Troy C.

Sponsoring Organization Reference ID: ASH Bridge Grant

Status: Closed

Sponsoring Organization: American Society of Hematology

Award Dates: March 1, 2019 - February 28, 2021

Funded Amount for Entire Grant Period: \$150,000.00

Percent Effort: 14%

15. **Award: A Phase 2, Single-arm, Open-label, Study to Evaluate the Safety and Efficacy of MGTA-456 in Patients with Inherited Metabolic Disorders (IMD) Undergoing Hematopoietic Stem Cell (HSC) Transplantation (HSCT)**

Principal Investigator: Orchard, Paul J.

Sponsoring Organization Reference ID: MGTA-456

Status: Closed

Sponsoring Organization: Magenta Therapeutics  
Award Dates: January 15, 2018 - January 14, 2021  
\$695,778 (Direct to date)  
Percent Effort: 2%

16. **Award: Ex Vivo Lentiviral Transduced Hematopoietic Stem Cells for Mucopolysaccharidosis**  
Principal Investigator: McIvor, Riley S.  
Sponsoring Organization Reference ID: PO #BBB105734US  
Status: Closed  
Sponsoring Organization: Bluebird Bio, Inc.  
Award Dates: May 1, 2017 - December 31, 2020  
\$446,833 (Direct to date)  
Percent Effort: 5%
17. **Award: Biomarker Correlates of Neurocognitive Outcomes in the Cerebrospinal Fluid in MPS I**  
Principal Investigator: Julie Eisengart and Troy Lund  
Sponsoring Organization Reference ID: ODC Grant # MDBR-19-114  
Status: Closed  
Sponsoring Organization: University of Pennsylvania  
Award Dates: February 1, 2019 - October 31, 2020  
Funded Amount for Entire Grant Period: \$94,145.00  
Percent Effort: 2%
18. **Award: Biomarkers in MPS**  
Principal Investigator: Lund, Troy C.  
Status: Closed  
Sponsoring Organization: SHIRE HUMAN GENETIC THERAPIES, INC.  
Award Dates: September 3, 2019 - June 25, 2020
19. **Award: Accelerating Hematopoietic Cell Regeneration**  
Project Investigators: **Lund**, Troy C. (Principal, 1%)  
Status: Funded  
Sponsoring Organization: Regenerative Medicine Minnesota  
Award Dates: March 1, 2018 - February 29, 2020  
Percent Effort: 1%  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$162,514.00
20. **Award: A Prospective and Retrospective Data Collection Study to Evaluate Outcomes of Allogenic Hematopoietic Stem Cell Transplantation for the Treatment of Childhood Cerebral Adrenoleukodystrophy**  
Project Investigators: **Lund**, Troy C. (Co-Investigator, 1%), Orchard (Principal)  
Status: Funded  
Sponsoring Organization: Bluebird Bio, Inc.  
Award Dates: October 1, 2015 - September 30, 2019  
Percent Effort: 1%  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$114,515.00
21. **Award: Medical Student Summer Research Program in Regenerative Medicine - Bridge-T35**  
Project Investigators: Lund, Troy C. (Principal, 7%)

Status: Funded  
Sponsoring Organization: Regenerative Medicine Minnesota  
Award Dates: June 1, 2018 - May 27, 2019  
Percent Effort: 7%  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$53,813.00

22. **Award: Mayo Partnership in Regenerative Medicine**  
Principal Investigator: Tolar, Jakub  
Sponsoring Organization Reference ID: H3172-2,Ch 99, Art1,Sec 4,Subd2  
Status: Closed  
Sponsoring Organization: State of Minnesota  
Award Dates: July 1, 2014 - March 1, 2019  
Funded Amount for Entire Grant Period: \$171,080.00  
Project: Enhancing Bone Marrow Regeneration; Percent Effort: 1%
23. **Award: Feasibility of IAG/Dynamica Based Imaging for Cerebral Adrenoleukodystrophy**  
Principal Investigator: Orchard, Paul J.  
Status: Closed  
Sponsoring Organization: Minoryx Therapeutics  
Award Dates: May 28, 2018 - August 27, 2018  
Funded Amount for Entire Grant Period: \$40,947.00  
Percent Effort: 3%
24. **Award: Overcoming Barriers to Cellular Trafficking**  
Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: 5R03HL133318-02  
Status: Closed  
Sponsoring Organization: NIH National Heart, Lung, and Blood Institute  
Award Dates: August 15, 2016 - July 31, 2018  
Funded Amount for Entire Grant Period: \$50,000.00  
Percent Effort: 3%
25. **Award: Adipokine Regulation of Hematopoietic Cell Homing**  
Principal Investigator: Lund, Troy C.  
Status: Closed  
Sponsoring Organization: National Blood Foundation  
Award Dates: July 1, 2016 - June 30, 2018  
Funded Amount for Entire Grant Period: \$75,000.00  
Percent Effort: 1%
26. **Award: Pilot Program in Regenerative Medicine Research for Medical Students - Pre-T35**  
Project Investigators: Lund, Troy C. (Principal, 1%)  
Status: Funded  
Sponsoring Organization: Regenerative Medicine Minnesota  
Award Dates: June 1, 2017 - May 31, 2018  
Percent Effort: 1%  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$70,393.00
27. **Award: MT2013-22: A Phase 2/3 Study of the Efficacy and Safety of Hematopoietic**

**Stem Cells Transduced with Lenti D Lentiviral Vector for the Treatment of Childhood Cerebral Adrenoleukodstrophy (CCALD)**

Project Investigators: Lund, Troy C. (Co-Investigator), Orchard (Principal)

Status: Funded

Sponsoring Organization: Bluebird Bio, Inc.

Award Dates: August 1, 2013 - May 31, 2018

Funded Amount for Entire Grant Period or Proposed Grant Period: \$11,792.00

28. **Award: Longitudinal Study of Bone and Endocrine Disease in Children with MPS I, II, and VI: A Multicenter Study of the Lysosomal Disease Network**

Principal Investigator: Orchard, Paul J.

Status: Closed

Sponsoring Organization: Los Angeles Biomedical Research Institute

Award Dates: January 1, 2016 - April 26, 2018

Funded Amount for Entire Grant Period: \$29,040.00

Percent Effort: 1%

29. **Award: Bone Marrow Transplant and IV Laronidase Prevent Musculoskeletal Dysplasia in MPS I Mice**

Principal Investigator: **Lund**, Troy C.

Status: Closed

Sponsoring Organization: Genzyme Corporation

Award Dates: February 2, 2015 - January 1, 2018

Funded Amount for Entire Grant Period: \$244,390.00

Percent Effort: 1%

30. **Award: Enhancing Bone Marrow Regeneration**

Project Investigators: **Lund**, Troy C. (Project Leader, 1%), LeBien (Principal)

Status: Funded

Sponsoring Organization: Minnesota Regeneration Medicine Partnership: H3172-2, Ch99, Art1, Sec 4, Subd2

Award Dates: April 1, 2015 - September 30, 2017

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$173,342.00

31. **Award: Biomarkers of Frailty and its Impact on Geriatric HSCT Outcomes**

Principal Investigator: Arora, Mukta

Sponsoring Organization Reference ID: 6136-14

Status: Closed

Sponsoring Organization: Leukemia and Lymphoma Society

Award Dates: October 1, 2013 - September 30, 2017

Funded Amount for Entire Grant Period: \$180,018.00

Percent Effort: 1%

32. **Award: Pilot Program in Regenerative Medicine Research for Medical Students**

Project Investigators: **Lund**, Troy C. (Principal, 1%)

Status: Funded

Sponsoring Organization: Regenerative Medicine Minnesota

Award Dates: July 1, 2016 - June 30, 2017

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$76,307.00

33. **Award: Lysosomal Disease Network; Pilot Project 2: MR Spectroscopy to Determine Neuroinflammation and Oxidative Stress in MPS 1**  
Project Investigators: Lund, Troy C. (Co-Investigator, 5%), Whitley (Co-Principal)  
Status: Funded  
Sponsoring Organization: NIH/NINDS U5 NS056768  
Award Dates: September 30, 2014 - July 31, 2016  
Percent Effort: 5%  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$876,759.00
34. **Award: Perivascular Cell Characterization and Contribution to the Hematopoietic Niche**  
Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: 5K08HL108998-05  
Status: Closed  
Sponsoring Organization: NIH National Heart, Lung, and Blood Institute  
Award Dates: September 30, 2011 - June 30, 2016  
Funded Amount for Entire Grant Period: \$127,000.00  
Percent Effort: 75%
35. **Award: ASH HONORS Award for Joshua Pritchett**  
Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: HONORS - Pritchett  
Status: Closed  
Sponsoring Organization: American Society of Hematology  
Award Dates: June 1, 2015 - May 31, 2016  
Funded Amount for Entire Grant Period: \$5,000.00
36. **Award: Understanding Novel Extracellular Matrix Mechanisms of Hematopoietic Cell Homing to the Bone Marrow - the Niche's Niche**  
Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: ASH Junior Faculty Scholar Award  
Status: Closed  
Sponsoring Organization: American Society of Hematology  
Award Dates: July 1, 2013 - June 30, 2015  
Funded Amount for Entire Grant Period: \$75,000.00  
Percent Effort: 10%
37. **Award: Functional Proteomics Approach Towards Deciphering the Molecular Pathology of Adrenomyeloneuropathy**  
Principal Investigator: Lund, Troy C.  
Status: Closed  
Sponsoring Organization: Oliver's Army Foundation  
Award Dates: January 1, 2013 - December 31, 2014  
Funded Amount for Entire Grant Period: \$76,080.00  
Percent Effort: 1%
38. **Award: Characterization of Perivascular Cells and their Establishment of the Hematopoietic Niche**  
Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: 11-12 NIA

Status: Closed  
Sponsoring Organization: American Society for Blood & Marrow Transplant  
Award Dates: July 1, 2011 - June 30, 2014  
Funded Amount for Entire Grant Period: \$30,000.00  
Percent Effort: 1%

39. **Award: Establishing Hematopoietic Stem Cell (HSC) Homing in the Zebrafish as a Model for HSC Transplant**

Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: 2008 Research Training Award for Fellows  
Status: Closed  
Sponsoring Organization: American Society of Hematology  
Award Dates: July 1, 2008 - June 30, 2009  
Funded Amount for Entire Grant Period: \$3,000.00  
Percent Effort: 1%

40. **Award: Pediatric Bone Marrow Transplant and Cellular Homing Model in Zebrafish**

Principal Investigator: Lund, Troy C.  
Sponsoring Organization Reference ID: SBF Fellowship/Troy Lund  
Status: Closed  
Sponsoring Organization: St. Baldrick's Foundation  
Award Dates: July 1, 2008 - June 30, 2009  
Funded Amount for Entire Grant Period: \$47,089.00  
Percent Effort: 85%

**Other Grants, Awards, Gifts, or Endowment Earnings (Internal Sources)**

**Past:**

1. **Award: Special Deliveries of Microglial Progenitors in Lysosomal Disease**  
Project Investigators: Lund, Troy C. (Principal), Orchard (Co-Principal), Wagner (Co-Principal)  
Status: Funded  
Sponsoring Organization: Team Science Award (Minnesota Masonic Charities)  
Award Dates: January 1, 2019 - December 31, 2020  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$250,000.00
2. **Award: Biomarkers of Bilirubin Neurotoxicity**  
Project Investigators: Lund, Troy C. (Co-Principal), Satrom (Co-Principal)  
Status: Funded  
Sponsoring Organization: University of Minnesota, Department of Pediatrics, Cross-Divisional Grant Program  
Award Dates: November 1, 2018 - October 31, 2020  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$200,000.00
3. **Award: Peroxisome Transfer, A New Frontier in Biology**  
Project Investigators: Lund, Troy C. (1%)  
Status: Funded  
Sponsoring Organization: Children's Cancer Research Fund  
Award Dates: July 1, 2018 - June 30, 2020  
Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$50,000.00

4. **Award: Role of UHRF2 in Response to DNA Interstrand Crosslinks and 5-FU Induced Proliferative Stress**

Project Investigators: Lund, Troy C. (Co-Principal, 1%)

Status: Funded

Sponsoring Organization: Children's Cancer Research Fund

Award Dates: July 1, 2017 - June 30, 2018

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$100,000.00

5. **Award: A Novel Vitamin to Protect Against Cell Death**

Project Investigators: Lund, Troy C. (Principal, 1%)

Status: Funded

Sponsoring Organization: Medical School Innovation Research Grant

Award Dates: May 1, 2015 - April 30, 2016

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$10,000.00

6. **Award: Loss of Immune Tolerance to Profilin Induces the Cerebral Form of Adrenoleukodystrophy**

Project Investigators: Lund, Troy C. (Principal, 1%)

Status: Funded

Sponsoring Organization: Children's Cancer Research Fund

Award Dates: July 1, 2014 - June 30, 2015

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$100,000.00

7. **Award: Autoimmunity: The Cause of Childhood Cerebral Adrenoleukodystrophy**

Project Investigators: Lund, Troy C. (Principal, 1%)

Status: Funded

Sponsoring Organization: UMN Pediatrics Discovery Fund

Award Dates: April 1, 2013 - March 31, 2015

Percent Effort: 1%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$70,000.00

8. **Award: Mechanisms of Oxidative Stress in Young Blood Cells**

Project Investigators: Lund, Troy C. (Principal)

Status: Funded

Sponsoring Organization: Vikings Children's Award

Award Dates: March 1, 2013 - February 28, 2015

Funded Amount for Entire Grant Period or Proposed Grant Period: \$50,000.00

9. **Award: Screening for Enhancers of Hematopoietic Stem Cell Engraftment**

Project Investigators: Lund, Troy C. (Principal)

Status: Funded

Sponsoring Organization: AHC Seed Grant

Award Dates: January 1, 2014 - December 31, 2014

Funded Amount for Entire Grant Period or Proposed Grant Period: \$30,000.00

10. **Award: Loss of Immune Tolerance in Cerebral Adrenoleukodystrophy**

Project Investigators: Lund, Troy C. (Principal)  
Status: Funded  
Sponsoring Organization: Children's Cancer Research Fund  
Award Dates: January 1, 2012 - June 30, 2013  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$100,000.00

11. **Award: Zebrafish as a Model to Study Hematopoiesis**  
Project Investigators: Lund, Troy C. (Principal)  
Status: Funded  
Sponsoring Organization: University Pediatrics Foundation Scholar Award  
Award Dates: July 1, 2009 - June 30, 2011  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$75,000.00
12. **Award: Pediatrics Bone Marrow Transplant and Cellular Homing Model in Zebrafish**  
Project Investigators: Lund, Troy C. (Principal)  
Status: Funded  
Sponsoring Organization: St. Baldrick's Foundation  
Award Dates: July 1, 2008 - June 30, 2011  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$47,089.00
13. **Award: Telomeres in Muscular Dystrophy**  
Project Investigators: Lund, Troy C. (Co-Investigator), Lowe (Principal)  
Status: Funded  
Sponsoring Organization: Nash Avery Search for Hope Research Fund  
Award Dates: August 1, 2005 - August 1, 2006  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$50,000.00
14. **Award: Telomeres in Muscular Dystrophy**  
Project Investigators: Lund, Troy C. (Co-Investigator), Lowe (Principal)  
Status: Funded  
Sponsoring Organization: Nash Avery Search for Hope Research Fund  
Award Dates: March 1, 2004 - February 28, 2005  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$50,000.00

***Peer-Reviewed Publications***

1-169

1. Weinhofer I, Rommer P, Gleiss A, Ponleitner M, Zierfuss B, Waidhofer-Sollner P, Fourcade S, Grabmeier-Pfistershammer K, Reinert MC, Gopfert J, Heine A, Yska HAF, Casasnovas C, Cantarin V, Bergner CG, Mallack E, Forss-Petter S, Aubourg P, Bley A, Engelen M, Eichler F, **Lund** TC, Pujol A, Kohler W, Kuhl JS, Berger J. Biomarker-based risk prediction for the onset of neuroinflammation in X-linked adrenoleukodystrophy. *EBioMedicine*. 2023;96:104781. Epub 20230907. doi: 10.1016/j.ebiom.2023.104781. PubMed PMID: 37683329; PMCID: PMC10497986.
2. Smith MC, Belur LR, Karlen AD, Podetz-Pedersen K, Erlanson O, Laoharawee K, Furchich J, **Lund** TC, You Y, Seelig D, Webber BR, McIvor RS. Generation and characterization of an immunodeficient mouse model of mucopolysaccharidosis type II. *Mol Genet Metab*. 2023;138(4):107539. Epub 20230210. doi: 10.1016/j.ymgme.2023.107539. PubMed PMID: 37023503.
3. Pillai NR, Elsbecker SA, Gupta AO, **Lund** TC, Orchard PJ, Braunlin E. Hematopoietic cell



- transplantation for Mucopolysaccharidosis I in the presence of decreased cardiac function. *Mol Genet Metab.* 2023;140(3):107669. Epub 20230727. doi: 10.1016/j.ymgme.2023.107669. PubMed PMID: 37542767.
4. Park S, Mupere E, **Lund** TC, Hodges JS, Moody EC, Colicino E, Georgieff MK, Cusick SE. Blood Levels of Environmental Heavy Metals are Associated with Poorer Iron Status in Ugandan Children: A Cross-Sectional Study. *J Nutr.* 2023;153(10):3023-31. Epub 20230819. doi: 10.1016/j.tjnnt.2023.08.014. PubMed PMID: 37598752.
  5. Nolan EE, Durose WW, Taghizadeh L, King C, Gupta A, Orchard PJ, Lorentson M, Braaten K, Furcich JW, **Lund** T. Loss of Early Myeloid Donor Cell Engraftment into the Central Nervous System with Non-myeloablative Conditioning. *Blood Adv.* 2023. Epub 20231023. doi: 10.1182/bloodadvances.2023010923. PubMed PMID: 37871310.
  6. Miller BS, Fung EB, White KK, **Lund** TC, Harmatz P, Orchard PJ, Whitley CB, Polgreen LE. Persistent bone and joint disease despite current treatments for mucopolysaccharidosis types I, II, and VI: Data from a 10-year prospective study. *J Inher Metab Dis.* 2023;46(4):695-704. Epub 20230306. doi: 10.1002/jimd.12598. PubMed PMID: 36840680.
  7. **Lund** TC, Braunlin E, Polgreen LE, Gupta AO, Orchard PJ, Eisengart JB. Hurler Syndrome Glycosaminoglycans Decrease in Cerebrospinal Fluid without Brain-Targeted Therapy. *Ann Neurol.* 2023. Epub 20230907. doi: 10.1002/ana.26786. PubMed PMID: 37679306.
  8. Knight TE, Ahn KW, Hebert KM, Atshan R, Wall DA, Chiengthong K, **Lund** TC, Prestidge T, Rangarajan HG, Dvorak CC, Auletta JJ, Kent M, Hashem H, Talano JA, Rotz SJ, Frait E, Myers KC, Leung W, Sharma A, Bhatt NS, Driscoll TA, Yu LC, Schultz KR, Qayed M, Broglie L, Eapen M, Yanik GA. No impact of CD34(+) cell dose on outcome among children undergoing autologous hematopoietic stem cell transplant for high-risk neuroblastoma. *Bone Marrow Transplant.* 2023. Epub 20230904. doi: 10.1038/s41409-023-02092-3. PubMed PMID: 37666957.
  9. Kemp S, Orsini JJ, Ebberink MS, Engelen M, **Lund** TC. VUS: Variant of uncertain significance or very unclear situation? *Mol Genet Metab.* 2023:107678. Epub 20230803. doi: 10.1016/j.ymgme.2023.107678. PubMed PMID: 37574344.
  10. Jurdi NE, Hoover A, O'Leary D, Cao Q, Gupta A, Ebens C, Maakaron JE, Betts BC, Rashidi A, Juckett MB, **Lund** T, Bachanova V, MacMillan ML, Miller JS, Orchard PJ, Wagner JE, Vercellotti G, Weisdorf DJ, Dusenbery K, Terezakis S, Holtan SG. Phase II Study of Myeloablative 7-8/8-Matched Allogeneic Transplantation with Post-Transplantation Cyclophosphamide, Tacrolimus, and Mycophenolate Mofetil. *Transplant Cell Ther.* 2023;29(9):576 e1- e5. Epub 20230611. doi: 10.1016/j.jtct.2023.06.008. PubMed PMID: 37311510; PMCID: PMC10530433.
  11. Huang S, **Lund** T, Orchard P, Gupta A, Nascene D. Dilated Optic Nerve Sheath in Mucopolysaccharidosis I: Common and Not Necessarily High Intracranial Pressure. *AJNR Am J Neuroradiol.* 2023;44(1):91-4. Epub 20221229. doi: 10.3174/ajnr.A7755. PubMed PMID: 36581456; PMCID: PMC9835902.
  12. Huang S, Gupta A, Orchard P, **Lund** T, Nascene D. Venous Sinus Stenosis with Prominent Emissary Veins: A New Common Cranial MRI Finding of Mucopolysaccharidosis I. *AJNR Am J Neuroradiol.* 2023;44(10):1236-9. Epub 20230907. doi: 10.3174/ajnr.A7997. PubMed PMID: 37679022; PMCID: PMC10549949.
  13. Gong J, Liu Y, Chung TH, Xu L, **Lund** TC, Chang LJ. Intracerebral lentiviral ABCD1 gene therapy in an early disease onset ALD mouse model. *Gene Ther.* 2023;30(1-2):18-30.

- Epub 20220706. doi: 10.1038/s41434-022-00355-0. PubMed PMID: 35790794.
14. El Jurdi N, Hoover A, O'Leary D, Cao Q, Gupta A, Ebens C, Maakaron J, Betts BC, Rashidi A, Juckett M, **Lund** T, Bachanova V, MacMillan M, Miller J, Orchard P, Wagner J, Vercellotti G, Weisdorf D, Dusenbery K, Terezakis S, Holtan S. Phase II Study of Myeloablative 8/8- or 7/8-Matched Allogeneic Transplantation with Post-Transplant Cyclophosphamide, Tacrolimus, and Mycophenolate Mofetil: Marked Reduction in GVHD Risk Without Increased Relapse Risk Compared to Historical Cyclosporine/Methotrexate. medRxiv. 2023. Epub 20230329. doi: 10.1101/2023.03.24.23287521. PubMed PMID: 37034603; PMCID: PMC10081397.
  15. Dulski J, Muthusamy K, **Lund** TC, Wszolek ZK. CSF1R-related disorder: State of the art, challenges, and proposition of a new terminology. *Parkinsonism Relat Disord*. 2023;105894. Epub 20231010. doi: 10.1016/j.parkreldis.2023.105894. PubMed PMID: 37839910.
  16. Wiersma RE, Gupta AO, **Lund** TC, Sarafoglou K, Pierpont EI, Orchard PJ, Miller BS. Primary Adrenal Insufficiency in a Boy with Type I Diabetes: The Importance of Considering X-linked Adrenoleukodystrophy. *J Endocr Soc*. 2022;6(5):bvac039. Epub 20220412. doi: 10.1210/jendso/bvac039. PubMed PMID: 35450414; PMCID: PMC9017996.
  17. Wang H, Davison MD, Kramer ML, Qiu W, Gladysheva T, Chiang RMS, Kayatekin C, Nascene DR, Taghizadeh LA, King CJ, Nolan EE, Gupta AO, Orchard PJ, **Lund** TC. Evaluation of Neurofilament Light Chain as a Biomarker of Neurodegeneration in X-Linked Childhood Cerebral Adrenoleukodystrophy. *Cells*. 2022;11(5). Epub 20220307. doi: 10.3390/cells11050913. PubMed PMID: 35269535; PMCID: PMC8909395.
  18. Tipton PW, Kenney-Jung D, Rush BK, Middlebrooks EH, Nascene D, Singh B, Holtan S, Ayala E, Broderick DF, **Lund** T, Wszolek ZK. Reply to "Prophylactic Allogeneic Hematopoietic Stem Cell Therapy for CSF1R-Related Leukoencephalopathy". *Mov Disord*. 2022;37(5):1109-10. doi: 10.1002/mds.29018. PubMed PMID: 35587622.
  19. Takahashi T, Illamola SM, Jennissen CA, Long SE, **Lund** TC, Orchard PJ, Gupta AO, Long-Boyle JR. Busulfan dose Recommendation in Inherited Metabolic Disorders: Population Pharmacokinetic Analysis. *Transplant Cell Ther*. 2022;28(2):104 e1- e7. Epub 20211206. doi: 10.1016/j.jtct.2021.11.018. PubMed PMID: 34883294.
  20. Taghizadeh LA, King CJ, Nascene DR, Gupta AO, Orchard PJ, Higgins L, Markowski TW, Nolan EE, Furcich JW, **Lund** TC. Glycoprotein nonmetastatic melanoma protein B (GNMPB) as a novel biomarker for cerebral adrenoleukodystrophy. *Sci Rep*. 2022;12(1):7985. Epub 20220514. doi: 10.1038/s41598-022-11552-7. PubMed PMID: 35568699; PMCID: PMC9107455.
  21. Smith MC, Belur LR, Karlen AD, Erlanson O, Podetz-Pedersen KM, McKenzie J, Detellis J, Gagnidze K, Parsons G, Robinson N, Labarre S, Shah S, Furcich J, **Lund** TC, Tsai HC, McIvor RS, Bonner M. Phenotypic Correction of Murine Mucopolysaccharidosis Type II by Engraftment of Ex Vivo Lentiviral Vector-Transduced Hematopoietic Stem and Progenitor Cells. *Hum Gene Ther*. 2022;33(23-24):1279-92. Epub 20221123. doi: 10.1089/hum.2022.141. PubMed PMID: 36226412; PMCID: PMC9808798.
  22. Signorini C, De Felice C, Durand T, Galano JM, Oger C, Leoncini S, Hayek J, Lee JC, **Lund** TC, Orchard PJ. Isoprostanoid Plasma Levels Are Relevant to Cerebral Adrenoleukodystrophy Disease. *Life (Basel)*. 2022;12(2). Epub 20220120. doi: 10.3390/life12020146. PubMed PMID: 35207434; PMCID: PMC8874514.

23. Orchard PJ, Gupta AO, Eisengart JB, Polgreen LE, Pollard LM, Braunlin E, Pasquali M, **Lund** TC. Hematopoietic stem cell transplant for Hurler syndrome: does using bone marrow or umbilical cord blood make a difference? *Blood Adv.* 2022;6(23):6023-7. Epub 20220427. doi: 10.1182/bloodadvances.2022007212. PubMed PMID: 35476057; PMCID: PMC9699938.
24. Nguyen A, Miller WP, Gupta A, **Lund** TC, Schiferl D, Lam LSK, Arzumanyan Z, Orchard PJ, Polgreen LE. Open-Label Pilot Study of Interferon Gamma-1b in Patients With Non-Infantile Osteopetrosis. *JBMR Plus.* 2022;6(3):e10597. Epub 20220125. doi: 10.1002/jbm4.10597. PubMed PMID: 35309862; PMCID: PMC8914146.
25. Gupta AO, Raymond G, Pierpont EI, Kemp S, McIvor RS, Rayannavar A, Miller B, **Lund** TC, Orchard PJ. Treatment of cerebral adrenoleukodystrophy: allogeneic transplantation and lentiviral gene therapy. *Expert Opin Biol Ther.* 2022;22(9):1151-62. Epub 20220919. doi: 10.1080/14712598.2022.2124857. PubMed PMID: 36107226.
26. Gupta AO, Patterson MC, Wood T, Eisengart JB, Orchard PJ, **Lund** TC. Hematopoietic cell transplantation for sialidosis type I. *Mol Genet Metab Rep.* 2022;30:100832. Epub 20211208. doi: 10.1016/j.ymgmr.2021.100832. PubMed PMID: 35242566; PMCID: PMC8856904.
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28. Dulski J, Heckman MG, White LJ, Zur-Wyrozumska K, **Lund** TC, Wszolek ZK. Hematopoietic Stem Cell Transplantation in CSF1R-Related Leukoencephalopathy: Retrospective Study on Predictors of Outcomes. *Pharmaceutics.* 2022;14(12). Epub 20221212. doi: 10.3390/pharmaceutics14122778. PubMed PMID: 36559271; PMCID: PMC9788080.
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9. Ng, M., Gupta, A. O., Kenney-Jung, D., Nascene, D. R., Orchard, P. J., **Lund, T. C.** (2020). *MRI Gadolinium Volume in Cerebral Adrenoleukodystrophy: A Novel Biomarker to Quantify Cerebral Inflammation and Predict Transplant Response* (3, Supplement ed., vol. 26, pp. S220-S221). Biology of Blood and Marrow Transplantation. doi: <https://doi.org/10.1016/j.bbmt.2019.12.538>  
Sum of Times Cited:
10. **Lund, T. C.**, Eisengart, J., Polgreen, L., Braunlin, L., Gupta, A., Pasquali, M., Orchard, P.

(2020). *New biomarkers for MPS IH: Plasma iduronidase and urine non-reducing ends* (vol. 129, pp. S103-S104). *Molecular Genetics and Metabolism*. doi: [10.1016/j.ymgme.2019.11.264](https://doi.org/10.1016/j.ymgme.2019.11.264)

Sum of Times Cited:

### **Reply to Published Article**

1. Tipton, P. W., Kenney-Jung, D., Rush, B. K., Middlebrooks, E. H., Nascene, D., Singh, B., Holtan, S., Ayala, E., Broderick, D. F., **Lund, T. C.**, Wszolek, Z. K. (2022). *Prophylactic Allogeneic Hematopoietic Stem Cell Therapy for CSF1R-Related Leukoencephalopathy* (5th ed., vol. 37, pp. 1109-1110). *Movement disorders : official journal of the Movement Disorder Society*. PMID: 35587622 doi: [10.1002/mds.29018](https://doi.org/10.1002/mds.29018)

Sum of Times Cited:

### **Publications in Submission or in Progress**

*Asterisk(\*) - indicates Co-First Author*

*Underline - indicates student author*

### **Abstract**

1. **Lund, T.** *Safety and Tolerability of a Stepwise Increased Starting Rate for Laronidase Infusion in Mucopolysaccharidoses Type 1H (MPS 1H) Patients.*
2. Drozdov, D., Long, S. E., Gupta, A. O., **Lund, T. C.**, Boelens, J. J., Orchard, P. J. *Bodyweight and absolute lymphocyte count based dosing of rabbit anti-thymocyte globulin results in early cd4+ immune reconstitution in patients with inborn errors of metabolism undergoing umbilical cord blood transplantation.* American Society of Transplant and Cellular Therapy.
3. Firoozmand, A., O'Leary, D., Cao, Q., Gupta, A., Ebens, C., Maakaron, J., Betts, B., **Lund, T. C.**, Bachanova, V., MacMillan, M., Miller, J., Orchard, P., Wagner, J., Vercellotti, G., Weisdorf, D., Dusenbery, K., Terezakis, S., Holtan, S., El Jurdi, N., Juckett, M. *Allogeneic Hematopoietic Stem Cell Transplantation Using Reduced Intensity Conditioning with Cyclophosphamide/ Fludarabine/2 Gy Total Body Irradiation (TBI) preparative regimen with Tacrolimus, MMF with or without ATG for the Treatment of Hematological Malignancies.* American Society of Hematology.
4. Drozdov, D. (Lead Author), Long, S. E., **Lund, T. C.**, Gupta, A. O., Boelens, J. J., Orchard, P. J. *Bodyweight/ absolute lymphocyte count based dosing of Anti-Thymocyte Globulin (ATG) results in early CD4+ immune reconstitution in patients with inborn errors of metabolism undergoing umbilical cord blood transplantation.* American Society of Hematology.  
Reviewed and edited manuscript
5. Hoover, A., O'Leary, D., Cao, Q., Gupta, A., Ebens, C., Maakaron, J., Betts, B., Juckett, M., **Lund, T. C.**, Bachanova, V., MacMillan, M., Miller, J., Orchard, P., Wagner, J., Vercellotti, G., Weisdorf, D., Dusenbery, K., Terezakis, S., Holtan, S., El Jurdi, N. *Phase II Study of Myeloablative 8/8- or 7/8-Matched Allotransplantation with Post-Transplant Cyclophosphamide, Tacrolimus, and Mycophenolate Mofetil: Marked Reduction in GVHD Risk Without Increase Relapse Risk Compared to Historical Cyclosporine/Methotrexate.* American Society of Hematology.  
Enrolled patients on study
6. Belur, L., Braunlin, E., **Lund, T. C.**, Huber, A., Mantone, H., Karlen, A., Smith, M., Ou, L., Whitley, C. B., Buss, N., McIvor, R. S. *Comparative cardiac, neurologic, and skeletal*

*effectiveness of intravenous and intrathecal AAV9 delivered individually or combined in a murine model of mucopolysaccharidosis type I.*

7. Gupta, A. O., **Lund, T. C.**, Orchard, P. J., Miller, B. S. *Early Monitoring Identifies Pre-Symptomatic Adrenal Insufficiency in Children Diagnosed with Adrenoleukodystrophy on Newborn Screen.* Pediatric Endocrine Society.

## Patents

1. Methods for preventing cardiac or skeletal defects in diseases including mucopolysaccharidoses, W02022170082A1. Issued: August 11, 2022

## Presentations

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

Underline - indicates student presenter

1. **Lund, T. C.** "Strategies to Treat Adrenomyeloneuropathy", ALD Research Strategy Meeting 2023, Monaco, Monaco. (September 25, 2023).
2. **Lund, T. C.** "Translation of biomarkers into clinical phenotype – What matters to patients?", Rare Disease Forum: Innovation and Efficiency in Inherited Muscular and Adjacent Rare Disorders, Sanofi. (June 21, 2023). Lecture.
3. **Lund, T. C.** "Success of the Newborn Screen for Adrenoleukodystrophy", Alex TLC Community Weekend Conference, Alex, The Leukodystrophy Charity, Birmingham, England. (April 30, 2023).
4. **Lund, T. C.** "Transplant for Advanced Cerebral ALD: Risk-Benefit", Alex TLC Community Weekend Conference, Alex, The Leukodystrophy Charity, Birmingham, England. (April 29, 2023).
5. **Lund, T. C.** "Stem cell Homing to the Brain for Peroxisome Transfer", Minoryx Scientific Expert Meeting, Minoryx, Paris. (February 9, 2023).
6. **Lund, T. C.** "Primary graft failure in pediatric non-malignant disease: An old but critical hurdle", International Congress of BMT 2022, KSBMT, Busan, Korea, Democratic People's Rep. (September 1, 2022).
7. **Lund, T. C.** "Strategies to Treat High Risk ALD Patients", ALD Research Strategy Meeting, Monaco, Monaco. (September 1, 2021).
8. **Lund, T. C.** "Childhood Cerebral Adrenoleukodystrophy - Outcomes, Biomarkers, Treatments", 5th International Symposium on Myelin Disorders, Leipzig, Germany. (June 5, 2021).
9. **Lund, T. C.** "Treatment Updates Expert Panel", Alex - The Leukodystrophy Charity. (November 8, 2020).
10. **Lund, T. C.** "Updates on the Treatment of Cerebral ALD", Alex - The Leukodystrophy Charity. (November 7, 2020).
11. **Lund, T. C.**, Eichler, F. "Debate - Stem Cell Transplant versus Gene Therapy for X-ALD (with Troy **Lund** and Florian Eichler)", The European Society for Blood and Marrow Transplantation IEWP Annual Educational Meeting, London, United Kingdom. (October 11,

- 2019).
12. **Lund, T. C.** "Hematopoietic stem cell transplant for the glycoproteinoses", 6th Glycoproteinoses International Conference, The International Advocate for Glycoprotein Storage Diseases, Atlanta, Georgia. (July 27, 2019).
  13. **Lund, T. C.** "Anemia, Hemoglobinopathies, and Thalassemias", 2019 Intergovernmental Panel Physicians Training Summit, Accra, Ghana. (April 9, 2019).
  14. **Lund, T. C.** "Iron Deficiency Anemia and Thalassemia", International Organization for Migration - Center for Disease Control Middle East Regional Conference, Amman, Jordan. (December 12, 2018).
  15. **Lund, T. C.** "Hematopoietic Cell Transplantation for Adult Cerebral X-ALD: Minnesota Experience", Fourth International Symposium on Multiple Sclerosis and Myelin Disorder, Leipzig, Germany. (November 11, 2018).
  16. **Lund, T. C.** "The importance of a Multi-Disciplinary Approach in the lifelong monitoring of post-HSCT MPS patients", MPS Virtual e-Learning Summit, Japan. (October 16, 2018).
  17. **Lund, T. C., (Moderator)** "Trisaccharide Biomarker Detection in Mucopolysaccharidosis Type I", 15th International Symposium On MPS And Related Diseases, San Diego, California. (August 3, 2018).  
Co-Moderator
  18. **Lund, T. C.** "Common thalassemias/hemoglobinopathies in Africa with a focus on Sickle Cell Disease", International Organization for Migration - Africa MHD Mini Panel Physicians Training, Dar Es Salaam, Tanzania, United Republic of. (November 17, 2017).
  19. **Lund, T. C.** "Practical approach to anemia in resource limited setting", International Organization for Migration Africa MHD Mini Panel Physicians Training, Dar Es Salaam, Tanzania, United Republic of. (November 17, 2017).
  20. **Lund, T. C.** "Stem cell therapies of X-ALD", Inborn Errors Working Party of EBMT/ESID, Newcastle, England. (November 5, 2017).
  21. **Lund, T. C.** "Hematopoietic Stem Cell Transplant for Glycoproteinosis", 5th Glycoproteinoses International Conference, International Society for Mannosidosis & Related Storage Diseases, Family Session, Rome, Italy. (November 4, 2017).
  22. **Lund, T. C.** "Hematopoietic Stem Cell Transplant for Fucosidosis", 5th Glycoproteinosis International Conference, International Society for Mannosidosis & Related Storage Disease, Family Session, Rome, Italy. (November 4, 2017).
  23. **Lund, T. C.** "HCT for MPS I - 30 years' experience", Inborn Errors Working Party of EBMT/ESID, Ghent, Belgium. (November 6, 2016).
  24. **Lund, T. C.** "Monitoring graft efficacy and biomarkers of disease", Inborn Errors Working Party of EBMT/ESID, Ghent, Belgium. (November 6, 2016).
  25. **Lund, T. C.** "Transplantation and Outcomes in MPS", Symposium on MPS I, Buenos Aires, Argentina. (June 23, 2016).
  26. **Lund, T. C., Mugerwa, I., Cusick, S.** "From Zebrafish to Africa G6PD Deficiency", Uganda Research Symposium, Kampala, Uganda. (November 6, 2015).
  27. **Lund, T. C.** "Biomarkers in X-ALD", Inborn Errors Working Party of EBMT/ESID, Seville, Spain. (October 18, 2015).

28. **Lund, T. C.** "Bone Marrow Transplant for Mucopolipidosis", 2015 ISMRD Conference, St. Louis, Missouri. (July 26, 2015).
29. **Lund, T. C.** "CSF Biomarkers in Children with MPS-1H", Inborn Errors Working Party of EBMT/ESID, Munich, Germany. (October 19, 2014).
30. **Lund, T. C.** "Update on Gene Therapy for Fanconi Anemia", Inborn Errors Working Party of EBMT/ESID, Munich, Germany. (October 19, 2014).
31. **Lund, T. C.** "Outcomes After Hematopoietic Stem Cell Transplant for Children with I-Cell Disease", 13th International Symposium on Mucopolysaccharidoses and Related Diseases, Bahia, Brazil. (August 17, 2014).
32. **Lund, T. C.** "Outcomes for Bone Marrow Transplant for I-Cell Disease", International Society for Mannosidosis & Related Diseases Meeting, Charleston, South Carolina. (July 29, 2012).
33. **Lund, T. C.** "Homing of Hematopoietic Cells in a Zebrafish Transplant Model Utilizes the SDF1 and CXCR4 Axis", Zebrafish Disease Models Society 3, Dana-Farber Cancer Institute and Children's Hospital of Boston. (June 24, 2010).
34. **Lund, T. C.** "TIP-484 as an Herpesvirus Saimiri Oncogene", International HHV -6, -7 and -8 Meeting, Budapest, Hungary. (1997).

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

Underline - indicates student presenter

1. **Lund, T. C.** "Changes in CSF GAG after intravenous enzyme replacement therapy", Annual WORLD Symposium 2024, San Diego, California. (February 7, 2024).  
**Lund, T. C.** "Mesenchymal Stem Cells (MSC) to treat active cerebral ALD", ALD Connect Annual Meeting 2023, United States. (November 4, 2023).
2. **Lund, T. C.** "Brain Engraftment, Biomarkers, and Transplant", ALD Connect Annual Meeting 2023, United States. (November 3, 2023).
3. **Lund, T. C.** "Gene Therapy - Risks and Benefits", International Society for Cell and Gene Therapy - North America 2023 Regional Meeting, Houston, Texas. (September 8, 2023).
4. **Lund, T. C.** "ALD Research Update 2023", X out ALD. (July 16, 2023).
5. **Lund, T. C.** "Upcoming Gene Therapy for Rare Diseases", Optum Stem Cell, CAR T, and Gene Therapy Expert Panel. (July 12, 2023).
6. **Lund, T. C.** "Outcomes of Transplant for ALSP - Unmet Needs", ALSP Community Conference 2023, California Institute of Regenerative Medicine, Irvine, California. (March 26, 2023).
7. **Lund, T. C.** "Transplant & Gene Therapy for ALD Balancing Risk-Benefit", ALD Standards of Care Meeting, ALD Alliance, New York, New York. (March 16, 2023).
8. **Lund, T. C.** "Transplants in MPS II", 2023 Hunter Syndrome Community Conference. (March 12, 2023).
9. **Lund, T. C.** "The Grey Zone", ALD Connect Webinar, ALD Connect. (February 12, 2023).
10. **Lund, T. C.** "Outcomes for Hematopoietic Stem Cell Transplant in ALSP", Vigil Neuroscience ALSP Key Opinion Leader (KOL) event, Vigil Neuroscience, New York.

(December 6, 2022).

11. **Lund, T. C.** "Sharing Peroxisomes", ALD Connect Annual Meeting. (November 4, 2022).
12. **Lund, T. C.** "Hematopoietic cell transplant for HDLS", The Global Leukodystrophy Initiative. (October 11, 2022).
13. **Lund, T. C.** "ALD Research Update 2022", X out ALD. (July 24, 2022).
14. **Lund, T. C.** "HCT Outcomes for Childhood Cerebral ALD", 2022 United Leukodystrophy Foundation (ULF) Family Meeting. (June 24, 2022).
15. **Lund, T. C.** "From Donor to Recipient, Musings on the Brain", 2021 ALD Connect Annual Meeting. (November 11, 2021).
16. **Lund, T. C.** "New Research in ALD 2021", X out ALD. (July 25, 2021).
17. **Lund, T. C.** "Predictors of IQ in Hurler syndrome", National MPS Society 35th Annual Family Conference, National MPS Society. (June 2021).
18. **Lund, T. C.** "Transplant for cALD", 2021 United Leukodystrophy Foundation Family Meeting. (June 26, 2021).
19. **Lund, T. C.** "Update on cALD Biomarkers", 2021 United Leukodystrophy Foundation. (June 24, 2021).
20. **Lund, T. C.** "Men with cALD - Treatment Options", ALD Connect Boot Camp - Men with AMN, ALD Connect. (June 12, 2021).
21. **Lund, T. C.** "Cerebral Adrenoleukodystrophy - Treatments and Outcomes", ALD Connect Boot Camp - Cerebral Disease, ALD Connect. (May 22, 2021).
22. **Lund, T. C.** "ALD Doctors Standards of Care", ALD Family Weekend 2021. (March 20, 2021).
23. **Lund, T. C.** "The Blood-Brain Barrier and Hematopoietic Stem Cell Transplant", Virtual 26th Annual Blood-Brain Barrier Consortium, Neuro-Oncology and BBB Program at Oregon Health & Science University (OHSU). (March 11, 2021).
24. **Lund, T. C.** "Reproductive Options for ALD Families", 2021 ALD Connect. (March 5, 2021).
25. **Lund, T. C.** "Interview the ALD Expert", ALD Family Weekend 2021. (March 2, 2021).
26. **Lund, T. C.** "MLD and Inflammation", 17th Annual WORLD Symposium, San Diego, California. (February 11, 2021).
27. **Lund, T. C.** "ALD Newborn Screening", 2020 ALD Connect Patient Learning Academy. (November 14, 2020).
28. **Lund, T. C.** "Ask the Experts", 2020 ALD Connect Patient Learning Academy. (November 14, 2020).
29. **Lund, T. C.** "Cerebral ALD", 2020 ALD Connect Patient Learning Academy. (November 14, 2020).
30. **Lund, T. C.** "Non-BMT Resolution of Cerebral ALD", 2020 ALD Connect Annual Meeting. (November 13, 2020).
31. **Lund, T. C.** "G6PD Deficiency - A Global Perspective", United States Agency for International Development (USAID). (October 22, 2020). Lecture.

32. **Lund, T. C.** "Research in Adrenoleukodystrophy", 2020 Webinar, X out ALD. (September 19, 2020).
33. **Lund, T. C., (Presenter)** "BMT for ALD: Who is going to do well?", ULF Meeting 2020, United Leukodystrophy Foundation, Saint Paul. (June 27, 2020).
34. **Lund, T. C.** "BMT and Life and Transplant", ALD Connect Webinar, ALD Connect. (June 11, 2020).
35. Van Haren, K., Bonkowsky, J., **Lund, T. C.**, Parker, A. "Panel: Future Therapies - gene therapy for cerebral ALD, gene therapy for AMN, small molecule therapy", ALD Family Weekend 2020. (May 3, 2020).
36. **Lund, T. C.** "Bone Marrow Transplant for Aspartylglucosaminuria - Outcomes", Neurogene Aspartylglucosaminuria Advisory Board Meeting, Neurogene, New York, New York. (November 9, 2019).
37. **Lund, T. C.** "Engraftment, Disease Remission & Clinical Trial Update", ALD Connect 2019 Annual Meeting, Boston, Massachusetts. (November 8, 2019).
38. **Lund, T. C.** "MPS Biomarkers", 2019 MPS I Newborn Screening Educational Meeting, University of Minnesota, Minneapolis, Minnesota. (September 25, 2019).
39. **Lund, T. C.** "Adrenoleukodystrophy", United Leukodystrophy Foundation Scientific Symposium, Itasca, Illinois. (June 27, 2019).
40. **Lund, T. C.** "Risks and Rewards: Stabilizing cALD", ALD Connect, Philadelphia, Pennsylvania. (November 3, 2018).
41. **Lund, T. C.** "Loss of Immune Tolerance in Cerebral ALD", United Leukodystrophy Foundation, Charlotte, North Carolina. (June 25, 2018).
42. **Lund, T. C.** "-Omics in Rare Disease", ALD Connect Industry Advisory Council, Boston, Massachusetts. (2017).
43. **Lund, T. C.** "CSF Biomarkers", Global Leukodystrophy Initiative Alliance Conference, Philadelphia, Pennsylvania. (November 10, 2017).
44. **Lund, T. C.** "Genetic risk factors for advanced ALD", United Leukodystrophy Foundation Scientific Symposium, Omaha, Nebraska. (July 31, 2016).
45. **Lund, T. C.** "Outcomes for cALD after hematopoietic cell transplant", United Leukodystrophy Foundation Scientific Symposium, Omaha, Nebraska. (July 31, 2016).
46. **Lund, T. C.** "Bone Marrow Transplant for ALD (Webinar)", ALD Connect. (May 19, 2016).
47. **Lund, T. C., (Author & Presenter)** "Blood and CSF Biomarker Screening in ALD", Emerging and Translational Biology of Leukodystrophies, Baltimore, Maryland. (May 14, 2016).
48. **Lund, T. C.** "Virtual Biorepository for ALD Connect", ALD Connect 2015 Annual Meeting, Boston, Massachusetts. (October 3, 2015).
49. **Lund, T. C.** "Hematological findings in the PEX1-G844D model", Scientific Meeting of the United Leukodystrophy Foundation/Global Foundation for Peroxisomal Disorders, Omaha, Nebraska. (July 17, 2015).
50. **Lund, T. C.** "Update on Biomarkers for Childhood ALD", Adrenoleukodystrophy Biomarker Summit, Boston, Massachusetts. (March 8, 2015).



51. **Lund, T. C.** "Biomarkers for Adrenoleukodystrophy", United Leukodystrophy Foundation Meeting/ALD Connect Joint Meeting, Baltimore, Maryland. (August 3, 2014).
52. **Lund, T. C.** "Outcomes of Bone Marrow Transplant for Adrenoleukodystrophy", United Leukodystrophy Foundation Meeting/ALD Connect Joint Meeting, Baltimore, Maryland. (August 3, 2014).
53. **Lund, T. C.** "Oxidative Stress Modeling", Grand Rounds, Cancer Institute of New Jersey, New Brunswick, New Jersey. (September 15, 2013).
54. **Lund, T. C.** "Oxidative Stress and Rec Cell Metabolism", Grand Rounds Molecular Medicine, University of South Florida. (October 19, 2012).
55. **Lund, T. C.** "From Africa to the Bench the Story of G6PD", Grand Rounds, St. Jude Children's Research Hospital. (February 8, 2012).
56. **Lund, T. C.** "Why Does Africa Need So Much Blood?", American Society of Hematology 2011 Annual Meeting, San Diego Convention Center, San Diego, California. (December 8, 2011).

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

Underline - indicates student presenter

1. **Lund, T. C.**, Orchard, P. J. "Treatment Implementation: Existing therapy: allogeneic HCT", Mucopolysaccharidosis Newborn Screening Meeting, University of Minnesota, Minneapolis, Minnesota. (April 12, 2023).
2. **Lund, T. C.**, Gelb, M., Tortorelli, S., Rohrwasser, A., Szabo-Fresnais, N., Gaviglio, A., Pollard, L. "NBS: A deeper dive: Panel Discussion: Disease or not disease? Phenotype?", Mucopolysaccharidosis Newborn Screening Meeting, University of Minnesota, Minneapolis, Minnesota. (April 11, 2023).
3. **Lund, T. C.** "BMT for Metabolic Diseases", Pediatric BMT Spring Fest 2023, University of Minnesota Masonic Children's Hospital. (March 15, 2023).
4. **Lund, T. C.** "A (fish)Tale on Two Continents, G6PD biology", Global Health Research Series, University of Minnesota, Minneapolis, Minnesota. (January 29, 2021).
5. **Lund, T. C.** "Stem cells get stuck, but eventually make it home", Pediatric Grand Rounds, University of Minnesota, Minneapolis, Minnesota. (August 14, 2019).
6. **Lund, T. C.** "Translational Research", Pediatric Global Health Workshop Day, University of Minnesota, Minneapolis, Minnesota. (October 8, 2018).
7. **Lund, T. C.** "Traveling Hematology/Oncology", Travel and Tropical Medicine Seminars, University of Minnesota, Minneapolis, Minnesota. (May 15, 2017).
8. **Lund, T. C.** "Enhancing Bone Marrow Regeneration", 1st Annual Regenerative Medicine Minnesota Idea Exchange and Celebration, University of Minnesota, Minneapolis, Minnesota. (June 14, 2016).
9. **Lund, T. C.** "Pediatric Cancer Care in Sub-Saharan Africa", FCCT Symposium, University of Minnesota, Minneapolis, Minnesota. (April 16, 2016).
10. **Lund, T. C.** "Going Home after Transplant: Hurdles and Shortcuts", Pediatric Grand Rounds, University of Minnesota, Minneapolis, Minnesota. (October 7, 2015).
11. **Lund, T. C.** "Perspective on Global Medicine", 2014 Fairview Medical Missions Annual

Dinner, Minneapolis, Minnesota. (October 13, 2014).

12. **Lund, T. C.** "Zebrafish and U", Undergraduate Backstage Pass Event, University of Minnesota, Minneapolis, Minnesota. (2013).
13. **Lund, T. C.** "G6PD Deficiency: Diagnosis and Science in African Populations", Travel and Tropical Medicine Seminars, Shriners' Hospital. (October 16, 2013).
14. **Lund, T. C., (Keynote/Plenary Speaker)** "Excellence in Education", Hermantown-Proctor Education Banquet, Duluth, Minnesota. (2011).

**Peer-Reviewed Oral Presentations at International Professional Meetings, Conferences, etc**

Underline - indicates student presenter

1. Williams, D., Orchard, P., Duncan, C., Gupta, A., **Lund, T. C.**, Eichler, F., Sieker, J., Floro, N., Parsons, G., Gioia, M., Voytek, S., Dietz, A. "Integration site analysis in patients with cerebral adrenoleukodystrophy (CALD) treated with autotemcel gene therapy", 2021 BSGCT Virtual Congress, British Society for Gene and Cell Therapy. (October 22, 2021).
2. **Lund, T. C.**, Orchard, P. J., Raffel, G. D., Condon, C. E., Braun, J. A., Shanley, R., Gupta, A. O., Boitano, A. E., Davis Jr, J. C., Wagner, J. E. "A Phase 2 Trial Of Mgta-456 Cell Therapy Demonstrates Rapid And Durable Long-Term Improvement In Disease Outcomes In Inherited Metabolic Disease (IMD) Patients", 46th Annual Meeting of the European Society for Blood and Marrow Transplantation (EBMT 2020), Madrid, Spain. (March 22, 2020).
3. **Lund, T. C.** "Specific Inhibition of Hematopoietic Cell Migration to Adipogenic Marrow - "No Place To Home"", International Society for Stem Cell Research Annual Meeting, Stockholm, Sweden. (June 27, 2015).
4. **Lund, T. C.** "Role of tp53 in the Oxidative Stress Response of Erythroid Precursors", International Society for Experimental Hematology 43rd Annual Meeting, Montreal, Quebec, Canada. (August 24, 2014).
5. **Lund, T. C.** "A New Small Molecule Screening Platform for Hematopoietic Modulation in Adult Zebrafish", Zebrafish Disease Models Conference 7, Madison, Wisconsin. (July 1, 2014).
6. Carter, M., Shimshock, R., Kramer, A., **Lund, T. C.** "Role of tp53 in the Oxidative Stress Response of Erythroid Precursors", 11th International Conference on Zebrafish Development and Genetics, Madison, Wisconsin. (June 28, 2014).
7. Carter, M., Nash, N., Stadem, P., Kramer, A., **Lund, T. C.** "Sdf1 - Expression Reveals a Source of Pervasular-Derived Mesenchymal Stem Cells in Zebrafish", 11th International Conference on Zebrafish Development and Genetics, Madison, Wisconsin. (June 28, 2014).
8. Pinto, E., **Lund, T. C.**, Zembetti, G., Ribeiro, R. "Increased Prevalence of Chromosomally Integrated Human Herpesvirus-6 at Chromosome 11p Telomeric Region in Pediatric Adrenocortical Tumors", International HHV -6 & 7, Paris, France. (April 10, 2013).
9. **Lund, T. C.** "The First Zebrafish Model of G6PD Deficiency", Zebrafish Disease Models, Cold Spring Harbor - Asia. (April 2012).
10. Arbuckle, J. H., Medveczky, M. M., Luka, J., Hadley, S. H., Luegmayer, A., Ablashi, D., **Lund, T. C.**, Tolar, J., Meirleir, K. D., Montoya, J. G., Komaroff, A. L., Ambros, P. F., Medveczky, P. G. "The Latent Human Herpesvirus-6A and 6B Genome Specifically Integrates in Telomeres of Human Chromosomes In Vivo and In Vitro", 35th Annual International Herpesvirus Workshop, University of Utah, Salt Lake City, Utah. (July 29,

2010).

11. Tolar, J., Park, I. H., Xia, L., Osborn, M., **Lund, T. C.**, Orchard, P., Daley, G. Q., Blazar, B. "Hematopoietic Differentiation of Personalized Induced Pluripotent Stem Cells From Patients With Congenital Enzymopathy, Hurler Syndrome", International Society for Stem Cell Research 8th Annual Meeting, San Francisco, California. (June 19, 2010).
12. **Lund, T. C.**, Glass, T. J., Tolar, J., Zon, L. I., Blazar, B. R. "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", 6th European Zebrafish Genetics and Development Meeting, Rome, Italy. (July 19, 2009).
13. Medveczky, M. M., Collins, C., **Lund, T. C.**, Santana-Spain, T., Fejer, G., Medveczky, P. G. "The Latency Associated Nuclear Antigen and Terminal Repeats of the Genome are Essential for Episomal Replication of Both HHV-8 and Herpesvirus Saimiri", 26th International Herpesvirus Workshop, Regensburg, Germany. (August 3, 2001).
14. Medveczky, M. M., Collins, C., **Lund, T. C.**, Santana-Spain, T., Fejer, G., Horvath, E., Lane, B., Medveczky, P. G. "Is Herpesvirus Saimiri the Right Model for HHV-8?", Fourth International Conference on Human Herpesviruses 6, 7, and 8, Institut Pasteur, Paris, France. (May 12, 2001).
15. Medveczky, M. M., Collins, C., **Lund, T. C.**, Medveczky, P. G. "The Unique Region of the Herpesvirus Saimiri Genome Cloned in E. Coli is Infectious But Fails to Form Episomes in T Cells Due to Loss of Terminal Repeats", 3rd International KSHV Workshop, University of Massachusetts at Amherst. (July 10, 2000).

#### **Peer-Reviewed Oral Presentations at National Professional Meetings, Conferences, etc**

Underline - indicates student presenter

1. **Lund, T. C., (Author & Presenter)**, Satrom, K., (Author), Lock, E., (Author), Snook, K., (Author), Rao, R., (Author) "Phototherapy alters the plasma metabolite profile in human preterm infants", Pediatric Academic Societies Meeting, Pediatric Academic Societies, Washington, District of Columbia, United States. (May 1, 2023).
2. **Lund, T. C.** "Decreases in CSF IFN-alpha are associated with gain in IQ after ERT + HCT In Hurler's Syndrome", 19th Annual WORLD Symposium. (February 23, 2023).
3. **Lund, T. C.** "Conditioning Intensity, Modality, and Niche Clearance, Not Cell Dose, Determine Myeloid CNS Engraftment after Transplant", 2023 Tandem Meetings | Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR. (February 17, 2023).
4. **Lund, T. C.** "First Documentation of Cell-to-Cell Peroxisome Transfer in Hematopoietic Stem and Progenitor Cells: A Method to "Relieve Stress"?", 64th Annual American Society of Hematology Meeting. (December 12, 2022).
5. **Lund, T. C., (Author & Presenter)**, Hoover, A., (Author), O'Leary, D., (Author), Cao, Q., (Author), Gupta, A., (Author), Ebens, C., (Author), Maakaron, J., (Author), Betts, B., (Author), Juckett, M., (Author), Bachanova, V., (Author), MacMillan, M., (Author), Miller, J., (Author), Orchard, P., (Author), Wagner, J., (Author), Vercellotti, G., (Author), Weisdorf, D., (Author), Dusenbery, K., (Author), Terezakis, S., (Author), Holtan, S., (Author), El Jurdi, N., (Author) "Phase II study of Myeloablative 8/8- or 7/8-Matched Allotransplantation with Post-Transplant Cyclophosphamide, Tacrolimus, and Mycophenolate Mofetil: Marked Reduction in GVHD Risk Without Increase Relapse Risk Compared to Historical Cyclosporine/Methotrexate", 64th Annual American Society of Hematology Meeting,

- American Society of Hematology, New Orleans, Louisiana, United States. (December 12, 2022).
6. Williams, D. A., (Author), Bledsoe, J. R., (Author), Duncan, C. N., (Author), Eichler, F. S., (Author), Grzywacz, B., (Author), Gupta, A. O., (Author), **Lund, T. C., (Author)**, Orchard, P. J., (Author), Slauson, S., (Author), Whitney, D., (Author), Sieker, J. T., (Author), parsons, G., (Author) "Myelodysplastic Syndromes after Eli-cel Gene Therapy for Cerebral Adrenoleukodystrophy (CALD)", ASGCT 25th Annual Meeting, ASGCT, Washington D.C. (May 2022).
  7. **Lund, T. C.** "Bone Marrow and Umbilical Cord Blood Are Equivalent Stem Cell Sources for Hurler Syndrome", Tandem Meetings I Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR, Salt Lake City, Utah, United States. (April 24, 2022).
  8. **Lund, T. C.** "Bone marrow and umbilical cord blood are equivalent stem cell sources for Hurler syndrome", 18th Annual WORLD Symposium, Lysosomal Disease Network, San Diego, California. (February 8, 2022).
  9. **Lund, T. C.**, Polgreen, L. E., Braunlin, E. A., Dickson, P., Tolar, J., Gupta, A. O., Chen, A., Orchard, P. J., Eisengart, J. "Biochemical predictors of neurocognitive outcomes in Hurler syndrome", 17th Annual WORLD Symposium. (February 9, 2021).
  10. **Lund, T. C., (Author & Presenter)**, Orchard, P., (Author), Eichler, F., (Author), Duncan, C., (Author), De Oliveira, S., (Author), Thrasher, A., (Author), Kühl, J., (Author), Sevin, C., (Author), Gissen, P., (Author), Amartino, H., (Author), Smith, N., (Author), Shahmir, E., (Author), Chin, W., (Author), McNeil, E., (Author), Aubourg, P., (Author), Williams, D., (Author) "Lenti-D Hematopoietic Stem Cell Gene Therapy Stabilizes Neurologic Function in Boys with Cerebral Adrenoleukodystrophy", Transplantation and Cellular Therapy (TCT) Meetings of ASTCT and CIBMTR, ASTCT and CIBMTR, Orlando, Florida, United States. (February 20, 2020).
  11. **Lund, T. C., (Author & Presenter)**, Orchard, P., (Author), Raffel, G., (Author), Condon, C., (Author), Braun, J., (Author), Gupta, A., (Author), Boitano, A., (Author), Cooke, M., (Author), Davis, J., (Author), Wagner, J., (Author) "Mgta-456 Cell Therapy Stabilizes Neurologic Function in Boys with Cerebral Adrenoleukodystrophy", Transplantation and Cellular Therapy (TCT) Meetings of ASTCT and CIBMTR, ASTCT and CIBMTR, Orlando, Florida, United States. (February 19, 2020).
  12. Slucher, T., Patturi, S., **Lund, T. C.**, Lauden, S., Edowohorhu, G., Ernest, K., Gbadero, D. "Understanding and Relating the Effects of Infectious Parameters with G6PD Deficiency", American Academy of Pediatrics National Conference, New Orleans, Louisiana. (October 29, 2019).
  13. Downey, M., Gupta, A., Stanley, R., Miller, W. P., **Lund, T. C.**, Orchard, P. J., Smith, A. R. "Reduced Toxicity Conditioning is Better Tolerated but has Higher Graft Failure Compared to Myeloablative Conditioning in Children with Inherited Metabolic Disorders", TCT Meetings of ASBMT and CIBMTR, Houston, Texas. (February 24, 2019).
  14. **Lund, T. C.**, Gupta, A., Nascene, D., Orchard, P. J. "Repair of the Blood Brain Barrier with Neutrophil Recovery Following HSCT for Cerebral Adrenoleukodystrophy", TCT Meetings of ASBMT and CIBMTR, Houston, Texas. (February 24, 2019).
  15. Orchard, P. J., Raffel, G. D., Condon, C. E. H., Monaghan, C. A., Braun, J. A., Shanley, R., **Lund, T. C.**, Gupta, A., Boitano, A. E., Cooke, M. P., Davis, J. C., Wagner, J. E. "Robust Engraftment with Mgta-456, a CD34+ Expanded Cell Therapy Product in Patients with

- Inherited Metabolic Disorders (IMD): Preliminary Phase 2 Trial Results", TCT Meetings of ASBMT and CIBMTR, Houston, Texas. (February 24, 2019).
16. Duncan, C. N., Eichler, F., Thrasher, A. J., Orchard, P. J., Nakamura de Oliveira, S., **Lund, T. C.**, Amartino, H., Smith, N. J. C., McNeil, E., Chin, W., Aubourg, P., Williams, D. A. "Updated Safety and Efficacy Outcomes from an Ongoing Phase 2/3 Trial of Lenti-D Autologous Hematopoietic Stem Cell Gene Therapy for the Treatment of Cerebral Adrenoleukodystrophy", TCT Meetings of ASBMT and CIBMTR, Houston, Texas. (February 24, 2019).
  17. Gupta, A., **Lund, T. C.**, Anderson, N., Miettunen, K., Eisengart, J., Braunlin, E., Orchard, P. "Allogeneic Hematopoietic Stem Cell Transplant Outcomes in Fucosidosis", WORLD Symposium, Orlando, Florida. (February 8, 2019).
  18. Nestrasil, I., Svatkova, A., Labounek, R., Mueller, B., Nascene, D., **Lund, T. C.**, Orchard, P., Whitley, C. B. "Discovery of Brain MRI Signatures in Infants with Severe form of MPS I in the pre-HSCT and post-HSCT Stages", WORLD Symposium, Orlando, Florida. (February 8, 2019).
  19. Braunlin, E., Miettunen, K., **Lund, T. C.**, Orchard, P. "Hematopoietic Cell Transplantation for Severe MPS I in the First Six Months of Life: The Heart of the Matter", WORLD Symposium, Orlando, Florida. (February 8, 2019).
  20. **Lund, T. C.**, Eisengart, J., Pierpont, R., Kaizer, A., Rudser, K., Pasqualli, M., Dickson, P., Miller, W., Polgreen, L., Orchard, P. "Predicting Intelligence in MPS IH with Biomarkers", WORLD Symposium, Orlando, Florida. (February 8, 2019).
  21. Nestrasil, I., Paulson, A., Jireckova, J., Nascene, D., Vaneckova, M., Jurickova, K., Hlavata, A., **Lund, T. C.**, Orchard, P., Dusek, P. "Quantitative Brain MRI in Patients with Alpha-mannosidosis: Study from 3 Centers", WORLD Symposium, Orlando, Florida. (February 8, 2019).
  22. Lauden, S. M., Chongwain, S., Achidi, A., Helm, E., Cusick, S., Krug, A., Slusher, T., **Lund, T. C.** "Hepatitis C, Syphilis, and G6PD Deficiency in Cameroonian Blood Donors", 2017 AAP National Conference and Exhibition, Chicago, Illinois. (September 19, 2017).
  23. **Lund, T. C.** "Triple therapy for MPS-IH: Intrathecal Iduronidase, IV-ERT, and Hematopoietic Cell Transplant", 13th Annual WORLD Symposium, San Diego, California. (February 17, 2017).
  24. Mallhi, K., **Lund, T. C.** "Outcomes Following Umbilical Cord Blood Transplantation For Inherited Metabolic Disorders: Does Ucb/Recipient Hla Allelic Disparity Matter For Engrafted Survival?", 4th Annual Meeting at ASPHO, Minneapolis, Minnesota. (May 11, 2016).
  25. Eichler, F., Duncan, C., Amartino, H., Aziz-Bose, R., Baruchel, A., Dansereau, C., Dalle, J., Gaspar, H., Gissen, P., Kohn, D., Larghero, J., **Lund, T. C.**, Miller, W. P., Musolino, P. L., O'Meara, T., Orchard, P. J., Paker, A. M., Shah, A. J., Shamir, E., Raymond, G. V., Sankar, R., Smith, N., Thrasher, A., Aubourg, P., Williams, D. A. "A Phase 2/3 Study of the Efficacy and Safety of Ex Vivo Gene Therapy With Lenti-DTM Letiviral Vector for the Treatment of Cerebral Adrenoleukodystrophy", American Society for Gene and Cell Therapy's 19th Annual Meeting, Washington, D.C. (May 7, 2016).
  26. **Lund, T. C.**, Kramer, A. C., Stadem, P., Lehrke, M., Hanson, T. "Aidpogenic Chemokine Inhibition of Hematopoietic Cell Adherence and Transmigration, a Hurdle to Homing", American Society of Hematology 2015 Annual Meeting, Orlando, Florida. (December 8,

- 2015).
27. Arora, A., Bhatia, S., DeFor, T. E., Nayar, M., Belete, H., **Lund, T. C.**, Thyagarajan, B., Ustun, C., Weisdorf, D. "Impact of Frailty on Hematopoietic Cell on Early Transplant Outcomes in Older Recipients", American Society of Hematology 2015 Annual Meeting, Orlando, Florida. (December 8, 2015).
  28. Pritchett, J., Knox, K., Baewer, D., Verneris, M. R., **Lund, T. C.** "CD134+ T Cells Harbor Significantly Increase Levels of HHV -6 in DNA in Umbilical Cord Blood Transplant Patients", Conference on HHV - 6 & 7, Boston, Massachusetts. (November 11, 2015).
  29. Stadem, P., Hilgers, M., Dengo, D., Nabadda-Ndidde, S., **Lund, T. C.** "Analysis of Oxidative Stress Markers in Glucose-6-Phosphate Dehydrogenase Deficient Umbilical Cord Blood Samples in Kampala, Uganda", 2015 AAP National Conference and Exhibition, Washington, D.C. (October 27, 2015).
  30. Polgreen, L., Cusick, S., John, C., **Lund, T. C.** "Potential Role for Vitamin D in Reducing Inflammation and Lowering Cellular Adhesion Proteins to Protect from Cerebral Malaria", 2015 Pediatric Academic Societies Annual Meeting, San Diego, California. (April 28, 2015).
  31. Polgreen, L., Cabelka, C., **Lund, T. C.**, Miller, M., Orchard, P. "Impact of Laronidase on Shoulder, Elbow, and Hip Range of Motion in Children with Hurler Syndrome after Hematopoietic Cell Transplantation", 11th Annual WORLD Symposium, Orlando, Florida. (February 13, 2015).
  32. Carter, M., Kramer, A., **Lund, T. C.** "The Oxidative Stress Response in Erythroid Precursors is Mediated by tp53", American Society of Hematology 2013 Annual Meeting, New Orleans, Louisiana. (December 10, 2013).
  33. Perko, M., Perko, R., **Lund, T. C.** "Measuring Impact of Medicine Cabinets and Education of Caregivers Within Community Orphanages in Uganda", 2013 AAP National Conference & Exhibition, Orlando, Florida. (October 29, 2013).
  34. Miller, W., Rothman, S., Nascene, D., Kivisto, T., DeFor, T., **Lund, T. C.**, Tolar, J., Orchard, P. J. "Outcomes Following Allogeneic Hematopoietic Stem Cell Transplantation for Childhood Cerebral Variant Adrenoleukodystrophy: A Modern, Single Institution Experience", American Society of Hematology 2010 Annual Meeting, Orlando, Florida. (December 2010).
  35. **Lund, T. C.** "'Tasting the Microenvironment': Human Bone Marrow Stromal Cells Have Microenvironment Chemosensory Capacity Via Taste Receptor Expression", American Society of Hematology 2010 Annual Meeting, Orange County Convention Center, Orlando, Florida. (December 7, 2010).
  36. Tolar, J., Osborn, M. J., Maeder, M. L., Xia, L., Eide, C. R., Riddle, M., Wong, M., Lees, C. J., Nyquist, M., **Lund, T. C.**, Orchard, P. J., Wagner, J. E., Voytas, D. F., Joung, J. K., Blazar, B. R. "Gene Editing of Induced Pluripotent Stem Cells From Patients With Congenital Disorders", Genome Engineering: Research & Therapeutic Applications, FASEB, Steamboat Springs, Colorado. (June 11, 2010).
  37. **Lund, T. C.**, Panoskaltis-Mortari, A., Orchard, P., Tolar, J. "Markers of CSF Inflammation in Patients with Cerebral Adrenoleukodystrophy", WORLD Symposium, Miami, Florida. (February 12, 2010).
  38. Arbuckle, J. H., Medveczky, M. M., Luka, J., Hadley, S. H., Luegmayer, A., Ablashi, D., **Lund, T. C.**, Tolar, J., Meirleir, K. D., Montoya, J. G., Komaroff, A. L., Ambros, P.,

Medveczky, P. G. "The Latent Human Herpesvirus-6A and 6B Genome Specifically Integrates in Telomeres of Human Chromosomes In Vivo and In Vitro", Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. (May 2, 2009).

39. **Lund, T. C.**, Lenvik, T., Reyes, M., Jiang, Y., Verfaillie, C. M. "Splinkerette-Ligated Captured T7 (SCT)/RT-PCR, A New Method to Determine Retroviral Integration Flanking Sequences", 47th Annual American Society of Hematology Meeting, Atlanta, Georgia. (December 13, 2005).
40. **Lund, T. C.** "Splinkerette-ligated captured T7 (SCT)/RT-PCR, a new method to determine retroviral integration flanking sequences.", Abstracts of the American Society of Hematology 47th annual meeting, Orlando, Florida. (December 12, 2005).
41. **Lund, T. C.** "Retroviral Integration Detection", Experimental Biology 2001, Orlando, Florida. (April 2, 2001).

### **Peer-Reviewed Oral Presentations at Local and Regional Professional Meetings, Conferences, etc**

Underline - indicates student presenter

1. Perko, M., Kabatatooro, A., Perko, R., **Lund, T. C.** "Measuring Impact of Medicine Cabinets and Education of Caregivers Within Community Orphanages in Uganda", Hot Topics in Pediatrics 2012 Conference, Minneapolis, Minnesota. (May 31, 2013).
2. Carter, M., Kramer, A., **Lund, T. C.** "Glucose-6-Phosphate Dehydrogenase Deficiency as a Model System for Assessing Antioxidant Compounds", University of Minnesota Pediatric Research, Education and Scholarship Symposium (PRESS), Minneapolis, Minnesota. (April 2013).
3. Glass, T. J., **Lund, T. C.**, Blazer, B. R. "Expression of SDF-1 in a Zebrafish Model of Hematopoietic Cell Transplant", University of Minnesota Pediatric Research, Education and Scholarship Symposium (PRESS), Minneapolis, Minnesota. (April 23, 2010).

### **Poster Abstract Presentations at Professional Meetings, Conferences, etc.**

Underline - indicates student presenter

1. Chenxu, L., Braaten, K., Lorentson, M., **Lund, T. C.**, Moser, A., Torrey, A., Fallatah, W., Coles, L., Kartha, R. "Pharmacokinetics study of Nervonic Acid in the ALD Mouse Model", American Association of Pharmaceutical Scientist 2023 PHARMSCI 360 Conference, Orlando, United States. (October 22, 2023).  
*Meeting abstract submitted for review.*
2. Gupta, A. O., **Lund, T. C.**, Braun, J., Hale, K., Singh, S., Orchard, P. J. "Adrenoleukodystrophy National Registry: A Longitudinal Monitoring Platform for Newborns Diagnosed with Adrenoleukodystrophy", 22023 Association of Public Health Laboratories/ISNS Newborn Screening Symposium, Omaha, Nebraska. (October 20, 2023).  
*Meeting abstract submitted for review.*
3. **Lund, T. C.** "A phase 3 clinical trial of leriglitazone with adaptive placebo-controlled treatment duration in adults with cerebral adrenoleukodystrophy", 148th Meeting of the American Neurological Association (ANA) 2023, American Neurological Association, Philadelphia, Pennsylvania, United States. (September 9, 2023).
4. Pierpont, E. I., Labounek, R., Bondy, M., Paulson, A., Mueller, B. A., Wozniak, J. R., Dobyms, W. B., Gupta, A. O., **Lund, T. C.**, Orchard, P. J., Nascene, D., Nestrasil, I. "Diffusion Tensor Imaging of the Corpus Callosum as an Early Disease Marker in

Adrenoleukodystrophy", 148th Meeting of the American Neurological Association (ANA) 2023, American Neurological Association, Philadelphia, Pennsylvania, United States. (September 9, 2023).

5. **Lund, T. C., (Author & Presenter)**, Firoozmand, A., (Author), O'Leary, D., (Author), Cao, Q., (Author), Gupta, A., (Author), Ebens, C., (Author), Maakaron, J., (Author), Betts, B., (Author), Bachanova, V., (Author), MacMillan, M., (Author), Miller, M., (Author), Orchard, P., (Author), Wagner, J., (Author), Vercellotti, G., (Author), Weisdorf, D., (Author), Dusenberry, K., (Author), Terezakis, S., (Author), Holton, S., (Author), El Jurdi, N., (Author), Juckett, M., (Author) "Allogeneic Hematopoietic Stem Cell Transplantation Using Reduced Intensity Conditioning with Cyclophosphamide/Fludarabine/2Gy Total Body Irradiation", Tandem Meetings I Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR, ASTCT and CIBMTR, Orlando, Florida, United States. (February 16, 2023).
6. **Lund, T. C., (Author & Presenter)**, Drozdov, D., (Author), Long, S., (Author), Gupta, A., (Author), Boelens, J., (Author), Orchard, P., (Author) "Bodyweight and absolute lymphocyte count based dosing of rabbit anti-thymocyte globulin results in early cd4+ immune reconstitution in patients with inborn errors of metabolism undergoing umbilical cord blood transplantation", Tandem Meetings I Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR, ASTCT and CIBMTR, Orlando, Florida, United States. (February 16, 2023).
7. El Jurdi, N., **Lund, T. C.** "Low Incidence of Chronic Graft-Versus-Host Disease in Myeloablative Allogeneic Hematopoietic Cell Transplantation with Post-Transplant Cyclophosphamide Using Matched Related or Unrelated Donors: Phase II Study Interim Analysis", Tandem Meetings I Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR, Salt Lake City, Utah, United States. (2022).
8. **Lund, T. C., (Author & Presenter)**, Gupta, A., (Author), Orchard, P., (Author), Thakkar, S., (Author), Durose, W., (Author), King, C., (Author) "Adrenoleukodystrophy protein (ALDP) antibody formation and graft loss in gene therapy for adrenoleukodystrophy", 64th Annual American Society of Hematology Meeting, American Society of Hematology, New Orleans, Louisiana, United States. (December 12, 2022).
9. **Lund, T. C., (Author & Presenter)**, Drozdov, D., (Author), Long, S., (Author), Gupta, A., (Author), Boelens, J., (Author), Orchard, P., (Author) "Bodyweight and absolute lymphocyte count based dosing of rabbit anti-thymocyte globulin results in early cd4+ immune reconstitution in patients with inborn errors of metabolism undergoing umbilical cord blood transplantation", 64th Annual American Society of Hematology Meeting, American Society of Hematology, New Orleans, Louisiana, United States. (December 12, 2022).
10. Foy, A., (Author & Presenter), Elizondo, E., (Author), Kroening, S., (Author), Rogers, D., (Author), Kenney-Jung, D., (Author), Nascene, D., (Author), Nestrasil, I., (Author), Orchard, P. J., (Author), **Lund, T. C.**, Gupta, A. O., (Author), Pierpont, E. I., (Author) "Characteristics of seizures among boys with standard risk childhood cerebral adrenoleukodystrophy treated with hematopoietic cell transplantation", American Epilepsy Society Annual Meeting, Nashville, Tennessee. (December 5, 2022).
11. **Lund, T. C.**, Kaczmarczyk, A., Lasio, L. D., Viskochil, S., Longo, N., Orchard, P., Yang, A., Chang, I., C., H., Aliu, E., Siemon, A., Mori, M., Dickson, P., Al-Hertani, W., Ahrens-Nicklas, R., Pasquali, M. "Analysis of urine heparan sulfate and its non-reducing ends for the follow-up of abnormal newborn screening for Analysis of urine heparan sulfate and its non-reducing ends for the follow-up of abnormal newborn screening for MPS1", SIMD 43rd annual meeting, Society for Inherited Metabolic Disorders, Orlando, Florida. (April 10, 2022).



12. Srivastava, I., Aguirre, A., Vogel, H., **Lund, T. C.**, Van Haren, K. "NLPR3 Inflammasome Activation within Demyelinating Lesions in Cerebral Adrenoleukodystrophy", AAN 2022 Annual Meeting, American Academy of Neurology, Seattle, Washington. (April 7, 2022).
13. Pillai, N. R., (Author & Presenter), Gupta, A., (Author), **Lund, T. C.**, (Author), Orchard, P. J., (Author), Braunlin, E., (Author), Department of Pediatrics, Division of Genetics and Metabolism, University of Minnesota,, (Author), Pediatric Blood and Marrow Transplant, University of Minnesota,, (Author), University of Minnesota, (Author), Pediatrics, University of Minnesota, (Author) "Hematopoietic cell transplantation for Mucopolysaccharidosis type I in the presence of decreased cardiac function", 18th Annual WORLD Symposium, San Diego, California. (February 8, 2022).
14. **Lund, T. C.**, (Author & Presenter), El Jurdi, N., (Author), O'Leary, D., (Author), He, F., (Author), Rashidi, A., (Author), Warlick, E., (Author), Gupta, A., (Author), Maakaron, J., (Author), Janakiram, M., (Author), Slungaard, A., (Author), Smith, A., (Author), Bachanova, V., (Author), Brunstein, C., (Author), MacMillan, M., (Author), Miller, J., (Author), Betts, B., (Author), Ebens, C., (Author), Stefanski, H., (Author), Orchard, P., (Author), Vercellotti, G., (Author), Weisdorf, D., (Author), Holton, S., (Author) "Low Incidence of Chronic Graft-versus-host Disease in Myeloablative Allogeneic Hematopoietic Cell Transplantation with Post-Transplant Cyclophosphamide using Matched Related or Unrelated Donors: Phase II Study Interim Analysis", 63rd American Society of Hematology Annual Meeting, American Society of Hematology, Atlanta, Georgia, United States. (December 11, 2021).
15. Kroening, S., Gupta, A. O., Nascene, D. R., Shanley, R., Kenney-Jung, D. L., Eisengart, J., **Lund, T. C.**, Orchard, P. J., Pierpont, E. I. "Do Regional MRI Patterns Predict Treatment Outcomes For Cerebral Adrenoleukodystrophy?", ANA 2021 Virtual Meeting, American Academy of Neurology. (October 17, 2021).
16. Takahashi, T., Illamola, S. M., Jennissen, C., Long, S. E., **Lund, T. C.**, Orchard, P. J., Long-Boyle, J., Gupta, A. O. "Busulfan Dose Recommendation in Inherited Metabolic Disorders: Population Pharmacokinetic Analysis", PRESS 2021, University of Minnesota Department of Pediatrics, Minneapolis, Minnesota. (April 23, 2021).
17. **Lund, T. C.**, (Author & Presenter), Tipton, P., (Author), Kenney-Jung, D., (Author), Rush, B., (Author), Singh, B., (Author), Holton, S., (Author), Ayala, E., (Author), Broderick, D., (Author), Wszolek, Z., (Author) "Hematopoietic stem cell transplantation: An Effective Treatment for CSF1R-related Leukoencephalopathy", American Academy of Neurology 2021 Annual Meeting, American Academy of Neurology, San Fransisco, California, United States. (April 17, 2021).
18. Takahashi, T., Illamola, S. M., Jennissen, C. A., Long, S. E., **Lund, T. C.**, Orchard, P. J., Long-Boyle, J. R., Gupta, A. O. "Busulfan Dose Recommendation in Inherited Metabolic Disorders: Population Pharmacokinetic Analysis", MSCO Spring Conference, Minnesota Society of Clinical Oncology, Minneapolis, Minnesota. (April 15, 2021).
19. Gimbel, B., Gupta, A. O., **Lund, T. C.**, Eisengart, J. B. "Does extending enzyme replacement therapy after transplant provide neurocognitive benefit in Hurler syndrome?", 17th Annual WORLD Symposium, San Diego, California. (February 10, 2021).
20. **Lund, T. C.**, Belur, S. R., Huber, A., Mantone, H., Smith, M., Podetz-Pedersen, K., Karlen, A., Braunlin, E. A., Robinson, N., Tsai, H.-C., McIvor, R. S., Bonner, M. "Effect of supraphysiological alpha-L-iduronidase (IDUA) expression on skeletal manifestations in mucopolysaccharidosis type I (MPS I) mice following ex vivo lentiviral vector transduction of hematopoietic stem cells", 17th Annual WORLD Symposium. (February 9, 2021).

21. Pillai, N., Orchard, P. J., **Lund, T. C.**, Ahrens-Nicklas, R., Andang, L., Elsea, S. H., Whitley, C. B. "Evaluation of the Effectiveness of Bone Marrow Transplantation in Multiple Sulfatase Deficiency", 17th Annual WORLD Symposium, San Diego, California. (February 9, 2021).
22. **Lund, T. C., (Author & Presenter)**, Nq, M., (Author), Gupta, A., (Author), Kenney-Jung, D., (Author), Nascene, D., (Author), Orchard, P., (Author) "MRI Gadolinium Volume in Cerebral Adrenoleukodystrophy: A Novel Biomarker to Quantify Cerebral Inflammation and Predict Transplant Response", Transplantation and Cellular Therapy Meetings of ASTCT and CIBMTR, ASTCT and CIBMTR, Orlando, Florida, United States. (February 19, 2020).
23. Wiersma, R., Chinnabhandar, V., Cao, Q., Erickson, K., **Lund, T. C.**, Smith, A. R., Orchard, P. J., Hiremath Mallikarjun, G., Gupta, A. O. "Pericardial Effusion after Hematopoietic Stem Cell Transplant is Associated with Poor Survival", Transplantation and Cellular Therapy Meetings of ASTCT and CIBMTR, Orlando, Florida. (February 19, 2020).
24. **Lund, T. C.**, Eisengart, J., Polgreen, L. E., Braunlin, E. A., Gupta, A. O., Pasquali, M. "New biomarkers for MPS IH: Plasma iduronidase and urine non-reducing ends", 16th Annual WORLD Symposium, Orlando, Florida. (February 12, 2020).
25. Kaczmarczyk, A., Thomas, A., Bailey, C., Viskochil, D., Gupta, A. O., **Lund, T. C.**, Orchard, P. J., Yang, A. C., Dennis, A., Pasquali, M. "Analysis of heparan sulfate and heparan sulfate non-reducing ends in Mucopolysaccharidosis Type I", WORLD Symposium, Orlando, Florida. (February 11, 2020).
26. Ng, M., Gupta, A. O., **Lund, T. C.**, Miller, B. S., Orchard, P. J. "Impact of Extended Enzyme Replacement Therapy After Transplant on Linear Growth in Mucopolysaccharidosis Type-1H", WORLD Symposium, Orlando, Florida. (February 11, 2020).
27. Slusher, T., Patturi, S., **Lund, T. C.**, Lauden, S., Edowohorhu, G., Ernest, K., Gbadero, D. "Understanding and Relating the Effects of Infectious Parameters with G6PD Deficiency", American Society of Tropical Medicine and Hygiene 68th Annual Meeting, National Harbor, Maryland. (November 24, 2019).
28. Polgreen, L. E., Gupta, A., Miller, W., Petryk, A., **Lund, T. C.**, Orchard, P. J. "Open-label, Multicenter, Pilot Study of Interferon Gamma - 1b in Patients with Autosomal Dominant Osteopetrosis type 2 (ADO2)", American Society of Bone Mineral Research Annual Meeting, Orlando, Florida. (September 23, 2019).
29. Vargo, T. L., **Lund, T. C.**, Gupta, A., Orchard, P., Braunlin, E., King, K. E., Eisengart, J. B. "Model for Newborn Screening: Short-term Treatment Outcomes for Children Identified with Hurler Syndrome at Birth", International Neuropsychological Society 2019 Annual Meeting, International Neuropsychological Society, New York, New York. (February 23, 2019).
30. Braunlin, E., Miettunen, K., Orchard, P., **Lund, T. C.**, Gupta, A., Nascene, D. "Consequences of New Born Screening: Neuroimaging in Infants with Severe MPS I < 6 Months of Age", WORLD Symposium, Houston, Texas. (February 8, 2019).
31. Cusick, S. E., Moody, E., Jaramillo, E., **Lund, T. C.**, Georgieff, M., Mupere, E. "High blood manganese is associated with iron deficiency in Ugandan children and modifies the relationship between iron deficiency and lead", Pediatric Academic Societies (PAS) 2018 Meeting, Toronto, Canada. (May 8, 2018).
32. Stormont, M., Gravel, K., Angerman, S., Orchard, P., **Lund, T. C.**, Miettunen, K. "Hearing Outcomes Related to Hurler Syndrome", American Academy of Audiology, Nashville, Tennessee. (April 21, 2018).

33. Bilski, R. L., **Lund, T. C.**, Miettunen, K., Orchard, P. J., Pierpnt, R., Miller, W. "Functional outcomes in engrafted survivors of HCT for advanced cALD: a comparison of patients undergoing full- versus reduced-intensity conditioning prior to transplantation", 32nd Annual Pediatric Research Education and Scholarship Symposium, Minneapolis, Minnesota. (April 13, 2018).
34. De Oliveira, S., Eichler, F., Duncan, C., Musolino, P. L., Orchard, P. J., Thrasher, A., Armant, M., Dansereau, C., **Lund, T. C.**, Miller, W. P., Raymond, G. V., Sankar, R., Shah, A. J., Sevin, C., Gaspar, H. B., Gissen, P., Armatino, H., Brakovic, D., Smith, N. J. C., Shamir, E., Pappas, K., Asmal, M., Davidson, D., Aubourg, P., Williams, D. A. "Autologous hematopoietic stem cell gene therapy for cerebral adrenoleukodystrophy – Results of an international Phase 2/3 trial", Society for Inherited Metabolic Disorders (SIMD) 40th Annual Meeting, San Diego, California. (March 14, 2018).
35. Duncan, C., Eichler, F., Musolino, P. L., Orchard, P. J., De Oliveira, S., Thrasher, A. J., Armant, M., Dansereau, C., **Lund, T. C.**, Miller, W. P., Raymond, G. V., Sankar, R., Shah, A. J., Sevin, C., Gaspar, H. B., Gissen, P., Amartino, H., Bratkovic, D., Smith, N. J. C., Paker, A. M., Shamir, E., O'Meara, T., Asmal, M., Davidson, D., Aubourg, P., Williams, D. A. "Lenti-D Hematopoietic Stem Cell Gene Therapy to Arrest Progression of Cerebral Adrenoleukodystrophy: Results of an International Phase 2/3 Trial", BMT Tandem Meeting, Salt Lake City, Utah. (February 25, 2018).
36. Lum, S. H., Miller, W., **Lund, T. C.**, Orchard, P. J., Jones, S., Boelens, J. J., Wynn, R. "Busulfan, fludarabine and ATG confers excellent survival in cord blood transplant for children with MPS IH", 14th Annual WORLD Symposium, San Diego, California. (February 9, 2018).
37. Spurlock, K., Orchard, P. J., Miller, W., **Lund, T. C.**, Eisengart, J. "Cognitive outcomes in Hurler syndrome following transplant before age 12 months", 14th Annual WORLD Symposium, San Diego, California. (February 9, 2018).
38. Spurlock, K., Orchard, P. J., Miller, W., **Lund, T. C.**, Eisengart, J. "Neurocognitive outcomes of intrathecal enzyme replacement therapy and transplant in Hurler syndrome", 14th Annual WORLD Symposium, San Diego, California. (February 9, 2018).
39. Eisengart, E., Miller, W., Kaizer, A., Rudser, K., King, K., Ziegler, R., Pierpont, E., Whitley, C., Raymond, G., Tolar, J., **Lund, T. C.**, Shapiro, E., Orchard, P. "Neurocognitive outcomes of intrathecal enzyme replacement therapy and transplant in Hurler syndrome", 14th Annual WORLD Symposium, San Diego, California. (February 9, 2018).
40. Polgreen, L. E., **Lund, T. C.**, Miller, W., Orchard, P. J. "Open Label, Single Arm, Pilot Study of Intravenous Laronidase Following Allogeneic Transplantation for Hurler Syndrome", 14th Annual WORLD Symposium, San Diego, California. (February 9, 2018).
41. Amartino, H., Eichler, F., Duncan, C., Musolino, P., Orchard, P. J., De Oliveira, S., Thrasher, A., **Lund, T. C.**, Miller, W. P., Raymond, G. V., Paker, M. A., Escolar, M., Fischer, A., Michel, G., Prasad, V., Smith, N., Asmal, M., Aubourg, P., Williams, D. A. "Autologous hematopoietic stem cell gene therapy for the treatment of cerebral adrenoleukodystrophy – Interim results of a phase 2/3 study", 2017 International Congress of Inborn Errors of Metabolism (ICIEM), Rio De Janeiro, Brazil. (September 8, 2017).
42. **Lund, T. C.**, Kramer, A., Taisto, M., Blake, A., Lehrke, M. "Decellularized Bone Marrow Reveals a Novel Niche Protein That Modulate Adhesion", 46th Annual International Society for Experimental Hematology Scientific Meeting, Frankfurt, Germany. (August 27, 2017).

43. Miller, W. P., Stricherz, M. K., Jennissen, C., Sando, N., Danielson, J., **Lund, T. C.**, Orchard, P. J. "High-Exposure, Targeted Daily Busulfan and Fludarabine-Based Conditioning for Children Undergoing Hematopoietic Stem Cell Transplantation for Inherited Metabolic Disorders: Outcomes at a Single Center", 58th American Society of Hematology Annual Meeting, San Diego, California. (December 6, 2016).
44. Pierpont, E., Eisengart, J., Ziegler, R., Raymond, G., Orchard, P. J., **Lund, T. C.**, Miller, W. P. "Neurocognitive Trajectory of Patients with Childhood Cerebral Adrenoleukodystrophy Who Received Allogeneic Hematopoietic Cell Transplantation at an Early Stage of Cerebral Disease", 58th American Society of Hematology Annual Meeting, San Diego, California. (December 6, 2016).
45. Lum, S. H., Miller, W. P., Jones, S., Mercer, J., **Lund, T. C., (Author & Presenter)**, Bonney, D., Orchard, P., Wynn, R. "The Changing Patterns of Graft Failure in MPS1H, Hurler Syndrome: A Review of 30-Years Experience", 58th American Society of Hematology Annual Meeting, San Diego, California. (December 6, 2016).
46. Le, G., Nash, N. L., Galligan, C. M., Johnson, H. G., Lowe, D. A., **Lund, T. C.** "Hematopoietic cell transplantation and enzyme replacement therapy rescue physical activity and muscle weakness in Hurler mice", 5th Annual Regenerative Rehabilitation Symposium, Atlanta, Georgia. (October 16, 2016).
47. **Lund, T. C.**, Kramer, A., Lehrke, M. "Specific Inhibition of Hematopoietic Cell Migration to Adipogenic Marrow – “No Place to Home”", 45th Annual International Society for Experimental Hematology Scientific Meeting, San Diego, California. (August 28, 2016).
48. Orchard, P. J., Rodgers, N., Kaizer, A., Rudser, K., Miller, W. P., **Lund, T. C.**, Braunlin, E. "Hurler Syndrome and Transplantation: Analysis of Mortality over 3 Decades Following Allogeneic Transplantation at the University of Minnesota", 14th International Symposium on MPS and Related Diseases, Bonn, Germany. (July 14, 2016).
49. Orchard, P., Miller, W., Raymond, G., Pasquali, M., **Lund, T. C.** "Improvement in Biomarkers after Intrathecal Iduronidase for Children with Hurler Syndrome", 14th International Symposium on MPS and Related Diseases, Bonn, Germany. (July 14, 2016).
50. Cooper, R., Wang, E., Scalora, A., Anderson, J., McCarty, J., **Lund, T. C.**, Roberts, C., Toor, A., Reynolds, A. "A Mathematical Model of Hematopoietic Stem Cell Transplantation and Analysis of the Effect of Drug Treatments on Transplantation in Patients With Lymphoma", AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida. (July 5, 2016).
51. Larson, D., Nascene, D., **Lund, T. C.**, Raymond, G. V., Orchard, P. J., Miller, W. P. "Advanced Childhood Cerebral Adrenoleukodystrophy: Rapid Pre-Transplant Radiographic Progression Predicts Poor Clinical Outcomes", PBMTTC Meeting 2016, Minneapolis, Minnesota. (May 11, 2016).
52. Miller, W. P., **Lund, T. C.**, Orchard, P. J., Nascene, D. "Hemorrhagic Cystitis Following Allogeneic Hematopoietic Stem Cell Transplantation For Hurler Syndrome: A Curiously Infrequent Complication", PBMTTC Meeting 2016, Minneapolis, Minnesota. (May 11, 2016).
53. Mallhi, K. K., Ebens, C. L., Tolar, J., Miller, W. P., Orchard, P. J., **Lund, T. C.** "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", PBMTTC Meeting 2016, Minneapolis, Minnesota. (May 11, 2016).
54. Miller, W. P., **Lund, T. C.**, Orchard, P. J., Nascene, D. "Timely Resolution Of Brain MRI

- Gadolinium Enhancement In Advanced Cerebral Adrenoleukodystrophy: An Imaging Surrogate For Long-Term Neurologic Response Following Allogeneic Hematopoietic Stem Cell Transplantation", PBMTTC Meeting 2016, Minneapolis, Minnesota. (May 11, 2016).
55. Eichler, F., Duncan, C., Amartino, H., Baruchel, A., Colleen Dansereau, C., Dalle, J. H., Gaspar, H. B., Gissen, P., Kohn, D. B., Larghero, J., **Lund, T. C.**, Miller, W. P., Musolino, P. L., O'Meara, T., Orchard, P. J., Paker, A. M., Shah, A. J., Shamir, E., Raymond, G. V., Sankar, R., Smith, N. J. C., Thrasher, A. J., Aubourg, P., Williams, D. A. "A Phase 2/3 Study of the Safety and Efficacy of Ex Vivo Gene Therapy With Lenti-D Lentiviral Vector for the Treatment of Childhood Cerebral Adrenoleukodystrophy (CCALD)", 19th Annual American Society of Gene & Cell Therapy Meeting 2016, Washington, D.C. (May 7, 2016).
  56. Slusher, T. M., Shapiro, S. M., Brearley, A. M., Radmacher, P., Groves, F., **Lund, T. C.**, Olusanya, B. O. "Assessing Neonatal Bilirubin Induced Neurologic Dysfunction in Nigeria", PAS 2016, Baltimore, Maryland. (May 3, 2016).
  57. Eichler, F., Duncan, C., Thrasher, A., Shah, A. J., Baruchel, A., Paker, A. M., Kohn, D. B., Bratkovic, D., Shamir, E., Raymond, G. V., Gaspar, H. B., Amartino, H., Dalle, J. H., Larghero, J., Smith, N. J. C., Musolino, P. L., Gissen, P., Orchard, P. J., Sankar, R., De Oliveira, S., O'Meara, T., **Lund, T. C.**, Miller, W. P., Aubourg, P., Williams, D. A. "Interim Results from a Phase 2/3 Study of the Safety and Efficacy of Hematopoietic Stem Cells Transduced Ex Vivo with Lentiviral Vector (Lenti-D) for Childhood Cerebral Adrenoleukodystrophy", AAN 2016, Vancouver, BC, Canada. (April 21, 2016).
  58. Cooper, R., Wang, E., Scalora, A., Anderson, J., McCarty, J., **Lund, T. C.**, Roberts, C., Toor, A., Reynolds, A. "A Mathematical Model of Hematopoietic Stem Cell Transplantation and Analysis of the Effect of Drug Treatments on Transplantation in Patients With Lymphoma", ASH 2015, Orlando, Florida. (December 8, 2015).
  59. **Lund, T. C.** "Second Allogeneic Hematopoietic Cell Transplantation for Graft Failure: Poorer Outcomes for Neutropenic Graft Failure", BMT Tandem Meeting, San Diego, California. (February 15, 2015).
  60. Carter, M., Shimshock, R., Kramer, A., **Lund, T. C.** "Mutant tp53 Causes a Gain of Function Increase in Sensitivity to Reactive Oxygen Species in Erythroid Precursors", American Society of Hematology 2014 Annual Meeting, San Francisco, California. (December 9, 2014).
  61. Lehrke, M., Kramer, A., **Lund, T. C.** "Dermatopontin alters whole bone marrow adhesion to extracellular matrix proteins in vitro", Regional Regeneration Symposium, Minneapolis, Minnesota. (November 20, 2014).
  62. Sandhu, K., Burns, L., **Lund, T. C.**, Verneris, M., Green, J. "Uncertainty of Chromosomally Integrated HHV-6 in a Stem Cell Transplant Recipient. What Does It All Mean?", São Paulo School of Advanced Science on Transplant Infectious Diseases Conference, São Paulo, Brazil. (October 24, 2014).
  63. **Lund, T. C.** "Improvement in Biomarkers After Intrathecal Iduronidase for Children with MPS IH", 13th International Symposium on Mucopolysaccharidoses and Related Diseases, Costa Do Sauipe, Bahia, Brazil. (August 17, 2014).
  64. Polgreen, L., Cabelka, C., **Lund, T. C.**, Miller, W., Orchard, P. "Impact of Laronidase on Shoulder, Elbow, and Hip Range of Motion in Children with Hurler Syndrome After Hematopoietic Cell Transplantation", 10th Annual WORLD Symposium, San Diego, California. (February 13, 2014).
  65. Perko, M., Perko, R., **Lund, T. C.** "Measuring Impact of Medicine Cabinets and Education of

- Caregivers Within Community Orphanages in Uganda", 2013 Family Medicine Midwest 2nd Annual Conference, Milwaukee, Wisconsin. (October 6, 2013).
66. Patrinostrro, X., Kramer, A., **Lund, T. C.** "Pro-Oxidant Induce Hemolysis in a Zebrafish Model of Glucose-6-Phosphate Dehydrogenase Deficiency", ASH Annual Meeting, Atlanta, Georgia. (November 2012).
  67. Yang, T., Patrinostrro, X., **Lund, T. C.** "Does the Antioxidant Effects of Vitamin C Reduce hemolysis in a G6PD Deficient Zebrafish Model", Masonic Cancer Center Health Disparities Research Day, Minneapolis, Minnesota. (September 1, 2012).
  68. Orchard, P. J., Tolar, J., Miller, W., Kennedy, J., King, K., Kivisto, T., **Lund, T. C.**, Polgreen, L. "Combination Therapy for Hurler Syndrome", 12th International Symposium on MPS and Related Diseases, Noordwijkerhout, Netherlands. (July 1, 2012).
  69. **Lund, T. C.**, Patrinostrro, X., Glass, T. G., Blazar, B. R. "The Ancestral Origin of Mesenchymal Stem Cells is Revealed by Perivascular SDF1 Expression", ISSCR, Yokohama, Japan. (June 16, 2012).
  70. Thibert, K., **Lund, T. C.** "Cerebral Spinal Fluid Levels of Matrix Metalloproteinases and Tissue Inhibitors to Metalloproteinases as Indicators for Disease in Boys With X-linked Adrenoleukodystrophy", University of Minnesota UROP Symposium. (April 18, 2012).
  71. **Lund, T. C.**, Verneris, M., Orchard, P., Tolar, J., Wesidorf, D., Brunstein, C. B. "Outcomes of Second Transplant After Graft Failure", BMT Tandem Meetings, San Diego, California. (February 8, 2012).
  72. Glass, T. J., Stadem, P., Patrinostrro, X., Blazar, B. R., **Lund, T. C.** "The Developing Central Nervous System in a bmi1a:gfp Transgenic Zebrafish", 7th European Zebrafish Meeting, Edinburgh, Scotland. (July 9, 2011).
  73. **Lund, T. C.**, Glass, T. J., Patrinostrro, X., Blazar, B. R. "Zebrafish Stromal Cells Have Mesenchymal, Endothelial, and Hematopoietic Niche Properties", 7th European Zebrafish Meeting, Edinburgh, Scotland. (July 9, 2011).
  74. **Lund, T. C.**, Panoskaltsis-Mortari, A., Orchard, P., Tolar, J. "Investigation of Inflammatory Makers in the CSF Boys with Cerebral Adrenoleukodystrophy", 39th Annual Meeting of the Child Neurology Society, Providence, Rhode Island. (October 16, 2010).
  75. Orchard, P. J., Basso, L., Kivisto, T., Raymond, G., Charnas, L., Nascene, D., **Lund, T. C.**, Tolar, J. "Chitotriosidase as an Inflammatory Biomarker of Cerebral Adrenoleukodystrophy", Child Neurology Society 39th Annual Meeting, Providence, Rhode Island. (October 16, 2010).
  76. **Lund, T. C.**, Kobs, A., Blazar, B. R., Tolar, J. "Mesenchymal Stromal Cells from Donors Varying Widely in Age are of Equal Cellular Fitness", Gordon Research Conferences – Biology of Aging Conference, Les Diablerets, Switzerland. (August 27, 2010).
  77. Perko, R. P., **Lund, T. C.** "Measuring the Impact of Medicine Cabinets and their Education Within Community Orphanages in Uganda", The 19th Annual GHEC Conference and The 1st Latin American and Caribbean Conference on Global Health, Cuernavaca, Mexico. (April 11, 2010).
  78. **Lund, T. C.**, Kobs, A., Blazar, B. R., Tolar, J. "Mesenchymal Stem Cells: Healthy At Any Age", BMT Tandem Meetings, Orlando, Florida. (February 28, 2010).
  79. Orchard, P. J., Basso, L., Kivisto, T., Raymond, G., Charnas, L., **Lund, T. C.**, Tolar, J.

- "Chitotriosidase as a Biomarker of Cerebral Adrenoleukodystrophy", WORLD Symposium, Miami, Florida. (February 12, 2010).
80. Tolar, J., Dickson, P., Osborn, M. J., **Lund, T. C.**, Clark, H. B., Orchard, P. J. "Intrathecal and Intravenous Iduronidase with Transplantation for Hurler Syndrome (MPS IH)", WORLD Symposium, Miami, Florida. (February 12, 2010).
81. Tolar, J., I-H, P., Xia, L., Osborn, M. J., **Lund, T. C.**, Orchard, P. J., Daley, G. Q., Blazar, B. R. "Patient Specific Induced Pluripotent Stem Cells in Mucopolysaccharidosis Type I", WORLD Symposium, Miami, Florida. (February 12, 2010).
82. **Lund, T. C.**, Glass, T. J., Tolar, J., Zon, L. I., Blazar, B. R. "A Model System for Visualization of Whole-Body sdf-1 Expression During Hematopoietic Cell Transplant", 51st American Society of Hematology Annual Meeting, New Orleans, Louisiana. (December 8, 2009).
83. Smith, A., Tolar, J., Kivisto, T. J., **Lund, T. C.**, Orchard, P. "Treatment of High Risk Inherited Lysosomal and Peroxisomal Disorders Using Reduced Intensity Hematopoietic Cell Transplantation", 51st American Society of Hematology Annual Meeting, New Orleans, Louisiana. (December 8, 2009).
84. **Lund, T. C.**, Kobs, A., Blazar, B. R., Tolar, J. "Robust Mesenchymal Stem Cells for Clinical Applications Can Be Derived from Donors of Any Age", 5th International Conference on Mesenchymal and Non-Hematopoietic Stem Cells, Austin, Texas. (November 14, 2009).
85. **Lund, T. C.**, Basso, L., Tolar, J., Orchard, P. J. "G-CSF Mobilized Human Peripheral Blood Contains Adherent Cells with Mesenchymal Stem Cell (MSC)-Like Properties and Have Telomere Limited Growth In Vitro", ASHPO 20th Annual Meeting, Toronto, Canada. (May 7, 2007).
86. **Lund, T. C.**, Basso, L., Orchard, P. J. "G-CSF Mobilized Human Mesenchymal Stem Cells Are Found in the Peripheral Blood and Have Telomere Limited Growth Potential.", 48th Annual American Society of Hematology Meeting, Orlando, Florida. (December 12, 2006).  
Abstract #4246
87. **Lund, T. C.**, Nelson, S. A., Grange, R. W., Lowe, D. A. "Telomere Shortening in Skeletal Muscle from MDX Mice", 45th Annual American Society for Cell Biology Meeting, San Francisco, California. (December 14, 2005).
88. **Lund, T. C.**, Anderson, L. B., Verneris, M. R., Grzywacz, B., Miller, J. S. "The Determination of the Membrane Proteome of Natural Killer Cells", 47th Annual American Society of Hematology Meeting, Atlanta, Georgia. (December 13, 2005).
89. **Lund, T. C.**, Alabi, A., Sarge-Njie, R., Schim van Der Loeff, M., Whittle, H. "HIV-1, -2 Screening by PCR from Dried Blood Spots", International Health Medical Education Consortium (IHMEC), Havana, Cuba. (March 2002).

### **Other Presentations**

Underline - indicates student presenter

1. **Lund, T. C., (Author & Presenter)** "From Donor to Recipient: Engrafting the Brain after Bone Marrow Transplant", Neurology Grand Rounds, (Virtual), United States. (September 19, 2023). Presentation/Talk.
2. **Lund, T. C.** "An Overview of MPS I and II Diagnoses", Texas Newborn Screening Program Lysosomal Storage Disorder Stakeholder Meeting, Texas Department of State Health Services, Austin, Texas. (August 24, 2023). Podium.

3. **Lund, T. C.** "From Recipient to Donor, musings on Brain Engraftment after BMT", Pediatric Grand Rounds. (August 9, 2023). Presentation/Talk.

### Media Contributions

1. KSTP-TV, "A '2 in 2 million' connection on a difficult journey with a very rare disorder", <https://kstp.com/kstp-news/top-news/a-2-in-2-million-connection-on-a-difficult-journey-with-a-very-rare-disorder/>. (August 22, 2023)
2. St. Louis KMOV4 TV, "Rare Neurological Disorder Added to Missouri Newborn Screening", <https://www.kmov.com/video/2023/02/27/rare-neurological-disorder-added-missouri-newborn-screening/>. (February 27, 2023)
3. M Health Fairview, "Dr. Troy **Lund** and the Groh Family's Win against ALD", <https://med.umn.edu/news/dr-troy-lund-and-groh-family-s-win-against-ald>. (February 23, 2023)
4. Commercial-News, "Team Blake fundraiser could expand into Family Fun Day", [https://www.commercial-news.com/news/team-blake-fundraiser-could-expand-into-family-fun-day/article\\_ed874764-5ce4-11ec-b391-7b9c000e6891.html](https://www.commercial-news.com/news/team-blake-fundraiser-could-expand-into-family-fun-day/article_ed874764-5ce4-11ec-b391-7b9c000e6891.html). (December 24, 2021)
5. Regina Leader-Post, "Kirsten Finn encourages families dealing with rare disease 'don't take no for an answer'", <https://leaderpost.com/news/politics/kirsten-finn-encourages-families-dealing-with-rare-disease-dont-take-no-for-an-answer>. (November 23, 2021)
6. Regina News, "Sask. to reimburse family who left province for \$1M life-saving procedure", <https://regina.ctvnews.ca/sask-to-reimburse-family-who-left-province-for-1m-life-saving-procedure-1.5676554>. (November 22, 2021)
7. Fox 9 KMSP, "'ALD Can't Stop Brock!' - One family's story ahead of Rare Disease Day, Fox 9 Morning Buzz", <https://www.fox9.com/video/905375>. (February 26, 2021)
8. M Health Fairview, "After a life-saving transplant, the Groh family is on a mission to 'X out ALD'", <https://www.mhealthfairview.org/blog/After-a-lifesaving-transplant-Groh-family-is-on-a-mission-to-X-out-ALD>. (February 19, 2021)
9. Global News | Corus Entertainment, "Saskatoon family looking for provincial funding to cover son's U.S. medical treatment for disease", <https://globalnews.ca/news/7312833/saskatoon-family-provincial-funding-medical-treatment-rare-disease/>. (September 2, 2020)
10. M Health Fairview, "What is a rare disease, and how are they treated?", <https://www.mhealthfairview.org/blog/What-Is-A-Rare-Disease-And-How-Are-They-Treated>. (February 28, 2019)
11. M Health Fairview, "Tanay and his family find hope for adrenoleukodystrophy (ALD) with gene therapy trial", <https://www.mhealthfairview.org/blog/Tanay-And-His-Family-Find-Hope-For-Adrenoleukodystrophy-Ald-With-Gene-Therapy-Trial>. (September 2018)
12. M Health Fairview, "ALD Comprehensive Clinic expands to help more adrenoleukodystrophy patients and families", <https://www.mhealthfairview.org/blog/Ald-Comprehensive-Clinic-Expands-To-Help-More-Adrenoleukodystrophy-Patients-And-Families>. (September 7, 2018)
13. M Health Fairview, "After a long search for answers, family finds expert care for a rare disease", <https://www.mhealthfairview.org/blog/After-Long-Search-For-Answers-Family-Finds-Expert-Care-For-Rare-Disease>. (February 28, 2018)



## TEACHING AND CURRICULUM DEVELOPMENT

### Course/Lecture List

#### *University of Minnesota*

Online Instruction, Hematology in the Tropics. GPEDS (Global Pediatric Education Series) for Medical Students Clerkship Directors: Winter J, Danich E, Howard C. T	2020 - Present
Classroom Lecture, Tropical Hematology	2015 - Present
Lecture: Resident, Fellow, Medical Student, HSCT Complications	2010 - Present
Classroom Lecture, DENT 8090: Bone Marrow Transplant and Oral Complications	2014 - 2019
Online Instruction, GPEDS 2.0 (Global Pediatric Education Series) - Hematology in the Tropics	2014 - 2019
Classroom Lecture, GCD 8181: Adult Hematopoietic Stem Cells	2015 - 2018
Classroom Lecture, InMD 6811: Human Disease IV/Hematology	2010 - 2012
Classroom Lecture, GERO 5110: Stem Cells and Aging	2011

### Curriculum Development Activities

#### *Other*

Summer Research Program in Regenerative Medicine	2016 - Present
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## ADVISING AND MENTORING

### Undergraduate Students Activities

#### *Other Advising Activities*

#### **University of Minnesota**

Supervised Research and Training: Emma Schindhelm	December 2022 - Present
Supervised Research and Training: Lexi Hanson	December 2022 - Present
Supervised Research and Training: Maggie Lorentson	January 2022 - Present
Supervised Research and Training: Megan Lawler	July 2021 - Present

Supervised Research and Training: Anoop Dhamera	January 2021 - Present
Supervised Research and Training: Stuti Thakkar	January 2021 - Present
Undergraduate Honors Thesis: Anoop Dhamera Exploring conditions of intercellular peroxisome transfer	September 2022 - May 2023
Undergraduate Honors Thesis: Megan Lawler Effects of 4-phenylbutyric Acid on Peroxisome Content in OP9 and C1498 Cells	July 27, 2022 - May 8, 2023
Supervised Research and Training: Aly Thorn	January 2022 - December 2022
Supervised Research and Training: Leyla Taghizadeh	August 2019 - August 2022
Supervised Research and Training: Carina King	January 2020 - July 2022
Supervised Research and Training: Brooke Burns	May 2019 - July 2020
Supervised Research and Training: Jane Baude	March 2017 - December 2019
Supervised Research and Training: Mariah Berner	June 2018 - September 2018
Supervised Research and Training: Alexis Elfstrum	May 2016 - June 2018
Supervised Research and Training: Brittney Ladson	September 2016 - January 2018
Supervised Research and Training: Kelsey Mayer	June 2017 - August 2017
Supervised Research and Training: Maria Null	February 2015 - August 2017
Supervised Research and Training: Caleb Walters	November 2016 - February 2017
Supervised Research and Training: Ben Severseike	December 2014 - September 2016
Supervised Research and Training: Annika Lee	May 2016 - August 2016
Supervised Research and Training: Margo Wohlfeil	May 2016 - August 2016
Supervised Research and Training: Jenna Weber	May 2014 - August 2016
Supervised Research and Training: Margaret Shevik	October 2015 - June 2016
Supervised Research and Training: Amanda Blake	October 2014 - May 2016
Undergraduate Honors Thesis: Ben Severseike Using Mean Telomere Length as a Marker to Determine at Risk Frail Patients Undergoing a Bone Marrow Transplant	November 2014 - April 2016
UROF Advisor: Amanda Blake	June 2015 - December 2015

*Characterizing the Hematopoietic Stem Cell Niche in the Pex1-G844D  
 Mouse Model for Human Zellweger Spectrum Disorders*

Supervised Research and Training: December 2012 - May 2014

Rick Shimshock

Supervised Research and Training: October 2012 - May 2014

Katie Thibert

Undergraduate Honors Thesis: September 2012 - May 2014

Paul Stadem

Investigating Perivascular Cells and Mesenchymal Stromal Cells in the  
 Danio rerio model organism

Supervised Research and Training: November 2010 - May 2014

Ashley Kramer

Supervised Research and Training: December 2009 - December

Paul Stadem

2013

CBS Honors Student

UROP Advisor: January 2012 - September 2012

Katie Thibert

*What Do matrix Metalloproteinases Mean for Adrenoleukodystrophy  
 Boys?*

UROP Advisor: January 2011 - April 2011

Paul Stadem

Regression Analysis of Variables Associated with X-linked  
 Adrenoleukodystrophy Pre- and Post Stem Cell Transplant

Supervised Research and Training: January 2009 - July 2010

Jessica Lorenz

**St. Olaf, MN**

Student Mentorship: 2016 - 2019

Annika Lee

Supervised Teaching Activity: May 2017 - August 2017

Kelsey Mayer

Mentored studies in endothelial biology.

**Graduate Student Activities**

***Advisees***

Michael Lehrke, Stem Cell Biology / MS 2013 - 2015

Dermatopontin Reduces Adhesion of Bone Marrow and  
 Endothelial Cells in Vitro.

Yuliana Astuti, Stem Cell Biology / MS 2012 - 2014

Thesis: In vivo assessment of hematopoietic cell homing and  
 engraftment in zebrafish using bioluminescence imaging

***Committee Advising***

***Doctoral Final Committee: Committee Reviewer***

Michael Nyquist, Mol/Cell/Dev Biol/Gen Ph D 2013 - 2014

Thesis: Application of targeting nucleases to modeling prostate  
 cancer gene rearrangements.

***Doctoral Preliminary Committee: Committee Chair***

Jacob Jensen, Comp & Molec Biosciences Ph D 2023 - Present

***Doctoral Preliminary Committee: Committee Member***

Chani Maher, Neuroscience Ph D 2014 - 2016  
 Thesis: Molecular Mechanisms Underlying the Failures of  
 Therapeutics in the Treatment of Malignant Glioma

***Master's Thesis/Research Committee: Committee Member***

Jacob Jensen, Comparative and Molecular Biosciences 2023 - Present

Emily Ward, Stem Cell Biology M S 2015 - 2016  
 Thesis: An exploration into human pluripotency and its role in the  
 development of squamous cell carcinoma in recessive dystrophic  
 epidermolysis bullosa patients

Michelle Gleason, Clinical Research M S 2014  
 Thesis: CD16xCD33 bispecific killer cell engager (BiKE)  
 activates natural killer (NK) cells from myelodysplastic syndrome  
 (MDS) patients against primary MDS and myeloid-derived  
 suppressor cell (MDSC) CD33-positive targets.

Li Li, Biological Science M B S 2012

**Other Students Activities**

***High School***

Supervised Research and Training: June 2016 - August 2017  
 Elle Strand

Supervised Research and Training: December 2015 - August 2016  
 Brittney Ladson

Supervised Research and Training: December 2015 - February 2016  
 Faousiyat Ayandedji

Supervised Research and Training: January 2013 - June 2015  
 Anna Gonikman

Supervised Research and Training: May 2012 - September 2012  
 Brennan Enright

Supervised Research and Training: May 2012 - September 2012  
 Tony Yang

***Medical Student***

Supervised Research and Training: January 2022 - Present  
 Crystal Chang

Supervised Research and Training: February 2018 - December 2020  
 Brianna Naumchik

Supervised Research and Training: June 2018 - August 2018  
 Jaya Dhama  
 Peroxisome Transfer in the Zebrafish

**Post Doc, Resident, and Trainee Supervision/Mentorship**

***Fulbright Scholar***

Paul Stadem July 2014 - July 2015

***Junior Faculty***

Natalia Gomez-Ospina, Stanford April 17, 2023 - Present  
 Clinical/Translational Advisory Panel (CAP/TAP) for California Institute  
 of Regenerative Medicine

Philip Tipton, Mayo Clinic July 2020 - Present

Writeup of CSF1R deficiency data.

Ashish Gupta	July 2018 - Present
Mentoring in evaluation and treatment of metabolic storage diseases.	
Rene Pierpont, PhD	July 2015 - Present
Design and writeup studies on patients with cALD.	
Daniel Kenny-Jung	July 2018 - July 2021
Clinic research on CSF1R patients and cALD patients.	
Kimberly Goodspeed, M.D., UT Southwestern	June 2019 - 2020
Writeup of AGU patents and outcomes.	

**Medical Fellow**

Daniel Drozdov	2020 - December 2022
Training in metabolic diseases	
Megan Hilgers, M.D.	2016 - 2020
Mentoring in evaluation and treatment of metabolic storage diseases.	
Kristy Pilbeam	February 2017 - 2018
Writeup of pediatric multiple myeloma.	
Ashish Gupta	June 2017 - May 2018
Mentoring in evaluation and treatment of metabolic storage diseases.	
Angela Hanson, D.O., Scholastic Oversight Committee Member	January 2015 - June 2017
Neonatal-Perinatal	
Ashley Balsam, M.D., Scholastic Oversight Committee Member	December 2014 - June 2017
Pediatric Intensive Care	
Kanwaldeep Mallhi	September 2015 - July 2016
Evaluation and publication of UMN graft failure experience.	
Sarah Kizilbash, M.D., Scholastic Oversight Committee Member	January 2014 - June 2016
Pediatric Nephrology	
Benjamin Hanisch, M.D., Scholastic Oversight Committee Member	January 2012 - June 2014
Pediatric Infectious Disease	

**Medical Student**

Ben Severseike	June 2015 - November 2019
Amelia Krug	April 2017 - August 2017
Isaac Obermeyer	July 2016 - August 2017
Ying Gibbens	2014 - 2016
Jennifer Hsu, Mayo Medical School, Rochester MN	2012 - 2016
G6PD Research	
Dianna Cheney-Peters	March 2015 - July 2016
Josh Pritchett	March 2013 - June 2016
ASH Honors Research Award Mentor	
Katie Thibert	2014 - 2015
Olatundun Williams	2011 - 2015
G6PD Research	

**Post Doc**

Tommy Bastian, Ph.D., Training Grant Post-Doctoral Fellows	December 2014 - December 2017
Michelle Carter, Ph.D., Training Grant Post-Doctoral Fellows	September 2012 - November 2014
Michelle Gleason, Ph.D., Training Grant Post-Doctoral Fellows	2012 - November 2014
Post-Graduate Committee Member	

Tiffany Glass, Training Grant Post-Doctoral Fellows  
Co-Mentor

September 2007 - July 2013

**Resident**

Stephanie Lauden, M.D. G6PD Research / Global Health Mentor	2015 - 2017
Megan Hilgers, M.D. G6PD Research / Global Health Mentor	2015 - 2016
Matthew Kudek Global Health Mentor	2014 - 2015
Abby Faulm, M.D. Global Health Mentor	2013 - 2014
Marnie Thant, M.D. Global Health Mentor	2013 - 2014
Caitlin Sanstead, M.D. Global Health Mentor	2012 - 2013
Nandini Kararia Global Health Mentor	2012 - 2013
Luke Schroeder, M.D. Global Health Mentor	2011 - 2012
Paul Wratkowski, M.D. Global Health Mentor	2011 - 2012
Brandon Anderson, M.D. Global Health Mentor	2010 - 2011
Jennifer Pratt, M.D. Global Health Mentor	2010 - 2011
Jose Jimenez, M.D. Global Health Mentor	2010 - 2011
Nathan Gossai, M.D. Global Health Mentor	2010 - 2011
Yoel Koreneld, M.D. Global Health Mentor	2010 - 2011
Allison Huny, M.D. Global Health Mentor	2009 - 2010
Gillian Centerwall, M.D. Global Health Mentor	2009 - 2010

**CLINICAL ACTIVITIES**

**Clinical Service**

Attending Physician, University of Minnesota Masonic Children's Hospital 2002 - Present  
Inpatient Attending 4 weeks/year; Outpatient Attending 4 weeks/year;  
Bone Marrow Harvests 4 weeks/year; Outpatient Clinic 1-2 days/week.

**Clinical Trials and Registries**

Intrathecal Enzyme Replacement Therapy for Patients with Mucopolysaccharidosis Type I (Hurler Syndrome), Co-Investigator August 24, 2018 - Present  
Internal Code: MT2017-10  
IRB# 0707M11762  
Novartis CCTL019B2206; HM2015-05R: A Multicenter study of March 9, 2018 - Present

apheresis collection of peripheral blood mononuclear cells (PBMC) in patients with CD19 expressing malignancies who could be eligible for a CTL019 clinical research trial, Co-Investigator  
 Internal Code: HM2015-05R  
 IRB# 1408M53262  
 Status: Closed to Accrual

Outcomes of Second and Subsequent Hematopoietic Stem Cell Transplant in Patients with Inborn Errors of Metabolism, Principal Investigator  
 Internal Code: 2018NTLS021  
 Status: SRC Approval

Hematopoiesis and Stem Cell Homing in DPT KO Mice, Principal Investigator  
 Internal Code: PEDS-2017-MICETEGS  
 IRB# 1612A34291  
 IRB Initial Approval

Transplantation of Unrelated Umbilical Cord Blood for Patients with Hematological Diseases with Cyclophosphamide/Fludarabine/Total Body Irradiation Myeloblastic Preparative Regimen, Co-Investigator  
 Internal Code: MT2005-10  
 IRB# 0507M71475  
 Status: Closed to Accrual

Voriconazole therapeutic drug monitoring in pediatric hematopoietic stem cell transplant patients, Co-Investigator  
 Internal Code: MT2013-37R  
 IRB# 1409M53482  
 Status: Closed to Accrual

Prevention of Bone Loss after Pediatric Hematopoietic Cell Transplantation, Co-Investigator  
 Internal Code: MT2014-23R  
 IRB# 1305M34621  
 Status: Open to Accrual

A Phase III Randomized Trial for Patients with de novo AML using Bortezomib and Sorafenib (IND#114480; NSC# 681239, NSC# 724772) for Patients with High Allelic Ratio FLT3/ITD, Co-Investigator  
 Internal Code: MT2014-20  
 IRB# 1112M07325  
 Status: Closed to Accrual

Monitoring of Immune Function and Minimal Residual Disease in Patients and Donors After Hematopoietic Cell Transplantation (HCT), Co-Investigator  
 Internal Code: MT2009-22R  
 IRB# 1002M78216  
 Status: Closed to Accrual

A Phase 2 Study of Subcutaneous Recombinant Human IL-15 (rhIL-15) and Haploidentical Donor Natural Killer (NK) Cell Infusion in Adults with Refractory or Relapsed Acute Myelogenous Leukemia, Co-Investigator  
 Internal Code: MT2014-25  
 IRB# 1503M65943  
 Status: Closed to Accrual

A Phase III Open-Label Trial of Caspofungin vs. Azole

February 7, 2018 - Present

December 28, 2017 - Present

November 22, 2017 - Present

September 7, 2017 - Present

August 7, 2017 - Present

July 31, 2017 - Present

January 25, 2017 - Present

November 30, 2016 - Present

November 8, 2016 - Present

Prophylaxis for Patients at High-Risk for Invasive Fungal Infections (IFI) Following Allogeneic Hematopoietic Cell Transplantation (HCT), Co-Investigator  
Internal Code: MT2014-11  
IRB# 1309M43941  
Status: Closed to Accrual  
June 6, 2016 - Present

Tandem Myeloablative Consolidation Therapy and Autologous Stem Cell Rescue for High-Risk Neuroblastoma  
Internal Code: MT2015-25  
IRB# 1601M82901  
Status: Open to Accrual  
March 17, 2016 - Present

Novartis CCTL019B2202; A Phase II, single arm, multicenter trial to determine the efficacy and safety of CTL019 in pediatric patients with relapsed and refractory B-cell acute lymphoblastic leukemia, Co-Investigator  
Internal Code: HM2015-14  
IRB# 1506M73201  
Status: Closed to Accrual  
January 7, 2016 - Present

Risk-Stratified Randomized Phase III Testing of Blinatumomab in First Relapse of Childhood B Lymphoblastic Leukemia (B-ALL), Co-Investigator  
Internal Code: AALL1331  
IRB# 1509M78143  
Status: Open to Accrual  
December 21, 2015 - Present

DT2219 immunotoxin for the treatment of relapsed or refractory CD19 (+) and/or CD 22 (+) B-lineage leukemia or lymphoma, Co-Investigator  
Internal Code: HM2014-26  
IRB# 1502M64121  
Status: Closed to Accrual  
October 28, 2015 - Present

Stromal Factors in the bone marrow microenvironment, Primary Investigator  
IRB# 1202M10361  
Status: Open to Accrual  
October 13, 2015 - Present

ALD-103 : A Prospective and Partially Retrospective Study to Evaluate Outcomes of Allogeneic Hematopoietic Stem Cell Transplantation for the Treatment of Childhood Cerebral Adrenoleukodystrophy, Co-Investigator  
Internal Code: MT2014-32R  
IRB# 1506M74603  
Status: Open to Accrual  
March 25, 2015 - Present

Treatment of Graft Failure After Hematopoietic Stem Cell Transplantation, Primary Investigator  
Internal Code: MT2013-06C  
IRB# 1401M49341  
Status: Open to Accrual  
January 10, 2015 - Present

Hematopoietic Stem Cell Transplant for Dyskeratosis Congenita or Severe Aplastic Anemia: Standard of Care Considerations, Co-Investigator  
Internal Code: MT2013-34C  
IRB# 1404M50183  
Status: Open to Accrual  
July 1, 2014 - Present

Allogeneic Hematopoietic Cell Transplantation for Inherited Metabolic Disorders and Severe Osteopetrosis following Conditioning with Busulfan (Therapeutic Drug Monitoring),



Fludarabine +/- ATG, Co-Investigator  
Internal Code: MT2013-31  
IRB# 1406M51542  
Status: Open to Accrual  
March 17, 2014 - Present

Longitudinal Study of Immune Mediated Disorders after  
Allogeneic HCT, Co-Investigator  
Internal Code: MT2009-21R  
IRB# 1011M93246  
Status: Closed to Accrual  
March 17, 2014 - Present

Longitudinal Study of Immune Mediated Disorders after  
Allogeneic HCT Protocol (Project 1) Immune Mediated Disorders  
After Allogeneic HCT – Training, Co-Investigator  
Internal Code: MT2009-21  
IRB# 1011M93246  
Status: Closed to Accrual  
September 4, 2012 - Present

Allogeneic Hematopoietic Stem Cell Transplant for Patients With  
Primary Immune Deficiencies, Co-Investigator  
Internal Code: MT2012-10C  
IRB# 1207M17321  
Status: Open to Accrual  
August 9, 2012 - Present

Second or Greater Allogeneic Hematopoietic Stem Cell  
Transplant Using Reduced Intensity Conditioning (RIC), Co-  
Investigator  
Internal Code: MT2012-11C  
IRB# 1207M17641  
Status: Open to Accrual  
October 20, 2011 - Present

Infusion of Cell Populations from Unlicensed Umbilical Cord  
Blood Units, Co-Investigator  
Internal Code: MT2011-13R  
IRB# 1108M03241  
Status: Open to Accrual  
January 14, 2010 - Present

Biochemical Correction of Severe Epidermolysis Bullosa by  
Allogeneic Stem Cell Transplantation, Co-Investigator  
Internal Code: MT2009-09  
IRB# 0911M74035  
Status: Open to Accrual  
November 20, 2008 - Present

Characteristics of Oxidative Changes and Inflammatory Markers  
of Disease in Patients and Controls, Primary Investigator  
Internal Code: MT2008-35R  
IRB# 0808M42321  
Status: Open to Accrual  
May 18, 2006 - Present

Total Body Irradiation Dose De-Escalation Study in Patients with  
Fanconi Anemia Undergoing Alternate Donor Hematopoietic Cell  
Transplantation, Co-Investigator  
Internal Code: MT2006-05  
IRB# 0605M85788  
Status: Open to Accrual  
November 21, 2005 - Present

Hematopoietic Stem Cell Transplantation in the Treatment of  
Infant Leukemia, Co-Investigator  
Internal Code: MT2005-25  
IRB# 0511M77206  
Status: Open to Accrual  
March 26, 2002 - Present

Hematopoietic Stem Cell Transplantation in High Risk Patients  
with Fanconi Anemia, Co-Investigator  
Internal Code: MT2002-02  
IRB# 0202M18741  
Status: Open to Accrual

A Study of Cyclophosphamide, Fludarabine, and Antithymocyte Globulin Followed by Matched Sibling Donor Hematopoietic Cell Transplantation in Patients with Fanconi Anemia, Co-Investigator Internal Code: MT2000-09 IRB# 0001M34441 Status: Open to Accrual	February 17, 2000 - Present
Collection of Blood, Bone Marrow, Skin, and Tumor Samples from Patients with Fanconi Anemia (FA) and Epidermolysis Bullosa (EB), Co-Investigator Internal Code: MT2013-01R IRB# 9907M12681 Status: Open to Accrual	October 25, 1999 - Present
G6PD Deficiency in Ugandan Blood Donors, Primary Investigator	2015 - 2020
Treatment of High Risk, Inherited Lysosomal and Peroxisomal Disorders by Reduced Intensity Hematopoietic Cell Transplantation and Low-Dose Total Body Irradiation with Marrow Boosting by Volumetric Modulated Arc Therapy (VMAT), Co-Investigator Internal Code: MT2011-24 IRB# 1205M14502 Status: Terminated	May 1, 2018
COG ANBL12P1: Pilot Study Using Myeloablative Busulfan/Melphalan (BuMel) Consolidation Following Induction Chemotherapy for Patients with Newly Diagnosed High-Risk Neuroblastoma, Co-Investigator Internal Code: MT2013-14 IRB# 1306M37141 Status: Terminated	September 28, 2017
Single-Center, Open Label, Randomized Trial Comparing StemRegenin-1 Expanded Versus Unmanipulated Umbilical Cord Blood Transplantation In Patients With High-Risk Malignancy Internal Code: MT2016-01 IRB# 1604M86745 Status: Abandoned	June 2, 2017
Treatment of High Risk, Inherited Lysosomal and Peroxisomal Disorders by Reduce Intensity Hematopoietic Stem Cell Transplantation, Co-Investigator Internal Code: MT2016-14 IRB# 0606M87246 Status: Abandoned	May 5, 2017
CTN 0501 – Multi-center, Open Label, Randomized Trial Comparing Single Versus Double Umbilical Cord Blood (UCB) Transplantation in Pediatric Patients with Leukemia and Myelodysplasia, Co-Investigator Internal Code: MT2006-20 IRB# 0611M96386 Status: IRB Study Closure	March 20, 2017
Hepatitis C, Syphilis, and G6PD Deficiency in Cameroonian Blood Donors, Primary Investigator	January 2016 - January 2017
Lymphodepleting Chemotherapy with Rituximab and Allogeneic Natural Killer Cells for Patients with Refractory Lymphoid Malignancies, Co-Investigator Internal Code: MT2009-15	November 30, 2016

IRB# 1002M77545 Status: Terminated	
Defibrotide for Patients With Hepatic Veno-occlusive Disease (VOD): A Treatment IND Study (Under CFR 312.34), Co-Investigator	October 21, 2016
Internal Code: MT2008-26 IRB# 0807M41621 Status: IRB Study Closure	
Allogeneic Hematopoietic Stem Cell Transplantation for Standard Risk Inherited Metabolic Disorders, Co-Investigator	July 26, 2016
Internal Code: MT2009-19 IRB# 0910M73814 Status: Terminated	
Allogeneic Transplantation For Severe Osteopetrosis, Co-Investigator	July 26, 2016
Internal Code: MT2008-20 IRB# 0808M42261 Status: Terminated	
Outcomes of Supplying Medicines to Orphanages in Uganda, Primary Investigator	2011 - 2014
G6PD Deficiency in Nigerian Children by Ethnic Group, Primary Investigator	December 2011

## SERVICE AND PUBLIC ENGAGEMENT

### Service to the Discipline/Profession/Interdisciplinary Area(s)

#### *Ad Hoc Reviewer*

Nature Genetics	May 2020 - Present
NIH NHLBI Mentored Patient Oriented Research (MPOR) Review Panel	February 2020 - Present
Nature Communications	2018 - Present
Molecular Genetics and Metabolism	2013 - Present
Nature Reports	2013 - Present
Orphanet Journal of Rare Diseases	2013 - Present
Annals of Neurology	2009 - Present
Journal of Inherited Metabolic Disease	2009 - Present
Biology of Blood and Marrow Transplant	2000 - Present
Blood	2000 - Present
Journal of Laboratory and Clinical Medicine	2000 - Present
Pediatric Blood and Cancer	2000 - Present
PLoSOne	2000 - Present
Stem Cells	2000 - Present

Transplantation	2000 - Present
Journal of Virology	1996 - 2002
<b>Board of Directors</b>	
United Leukodystrophy Foundation Scientific Board, approximately 40 hours spent per year	June 1, 2019 - Present
Industry Advisory Council on ALD	2017 - Present
ALD Connect, approximately 80 hours spent per year	June 1, 2016 - Present
<b>Grant Reviewer</b>	
California Institute for Regenerative Medicine (CIRM) Translational Research Projects	2019 - Present
California Institute for Regenerative Medicine (CIRM) Clinical Stage Projects Program	2018 - Present
UPenn Orphan Disease Center – Million Dollar Bike Ride Grant Program	2017 - Present
European Leukodystrophy Association	2016 - Present
Great Ormond Street Hospital Children's Charity Pan-PK Study in BMT	November 2018
The Netherlands Organisation for Scientific Research Adrenoleukodystrophy: from axonal degeneration to clinical trial readiness	November 2018
The Research Foundation – Flanders (FWO)	July 2018
LA BioMed Seed Grant Program Use of L-Glutamine in Patients with Sickle Cell Disease	May 2018
2018 North Carolina Biotechnology Center's Institutional Development Grant (IDG) Program X-RAD 320 XL X-Ray irradiator for cell and small animal research	November 2017
Department of Defense Reconstructive Transplant Awards	January 14, 2015 - January 15, 2015
Department of Defense Ideas Awards	July 11, 2012 - July 12, 2012
<b>Member</b>	
NIH Center for Scientific Review Special Emphasis Panel	2023 - Present
ACMG - Lysosomal Storage Disease Variants Curation Expert Panel	2021 - Present
ASH-AABB Transfusion Transmitted Diseases Committee	2013 - Present
CIBMTR Pediatric Cancer Working Committee	2010 - Present
CIBMTR PID and Inborn Errors of Metabolism Working Committee	2010 - Present
American Chemical Society	2009 - Present

ASH Committee on Government Affairs	2013 - 2021
ASH-HVO International Hematology Steering Committee	2011 - 2019
American Society for Blood and Marrow Transplantation Meeting Organizing Committee	2015
ASBMT Abstract Review Committee, Pediatric Disorders	2015
American Society of Pediatric Hematology-Oncology Membership Committee	2008 - 2013
Minority Association of Pre-Medical Students (MAPS): Empowering Physicians Panel to encourage minority medical school applicants	2008 - 2013
American Society for Hematology Training Council	2007 - 2009
<b>Mentor</b>	
Virtual 26th Annual Blood-Brain Barrier Consortium	March 12, 2021
<b>Moderator</b>	
2021 United Leukodystrophy Foundation	June 2021 - Present
American Society of Hematology 53rd Annual Meeting, San Diego, CA Graft Failure Session	December 6, 2011 - Present
<b>Organizer</b>	
ALD Family Gathering, University of Minnesota Leukodystrophy Center	June 10, 2023 - Present
Mucopolysaccharidosis Newborn Screening Meeting, Minneapolis, Minnesota, approximately 20 hours spent per year	April 10, 2023 - April 12, 2023
Pediatric Global Health Workshop Day	October 8, 2018
IOM Africa MHD Mini Panel Physicians Training	November 15, 2017 - November 17, 2017
Adrenoleukodystrophy Biomarker Summit, Boston, MA	March 7, 2015 - March 8, 2015
<b>Panelist</b>	
ALD Connect Patient Learning Academy 2023 MeetThe Expert Panel Translational Research Projects	November 4, 2023 - Present
NCI Burkitt's Lymphoma Panel, Philadelphia, PA National Cancer Institute	July 29, 2012 - July 31, 2012
<b>Public Advocate</b>	
AAP Advocate for Children's Health Advocacy Day, Washington, D.C.	February 6, 2012
ASH Advocacy Leadership Institute, Washington, D.C.	October 12, 2011 - October 13,

2011

**Service to the University/College/Department**

***College***

***University of Minnesota***

Member, Exploring Diversity in STEM	April 27, 2022 - Present
Member, Institute for Engineering in Medicine	2016 - Present
Advisor, Master of Biological Sciences (MBS), College of Continuing and Professional Studies	2012 - Present
Member, Masonic Cancer Center	2009 - Present
Member, Stem Cell Institute	2009 - Present
Reviewer, AHC Seed Faculty Seed Grants	2014 - 2016
Reviewer, AHC Faculty Research Development Grants	2015
Speaker, AMSA Medical Career Day	2012

***University***

***University of Minnesota***

Member, Institutional Biosafety Committee (IBC)	2013 - Present
Reviewer, Undergraduate Research Opportunities Program (UROP) grants	2013 - Present

***Department***

***University of Minnesota***

Member, WineFest Advisory Committee	2012 - Present
Reviewer, Department of Pediatrics “R” Award Grants	2018
Organizer, Global Pediatrics Research Networking Night	April 12, 2018

**Public and External Service**

Founder and CEO, Medicine for Sick Children Foundation Devoted to fighting illness in developing countries. <a href="http://www.medicineforsickchildren.org">www.medicineforsickchildren.org</a>	2006 - Present
Member, How Do Zebrafish Help Us with Cancer Research Minnesota Science Museum	2012 - 2019
Member, Health Volunteers Overseas	2005 - 2019

**International Engagement Summary**

Summarize international activities from the past year:

## G6PD Deficiency in Ugandan Blood Donors

In what countries did these activities take place:  
Uganda

Summarize international activities from the past year:  
Hepatitis C, Syphilis, and G6PD Deficiency in Cameroonian Blood Donors

Annotation:  
01/2016-01/2017

Summarize international activities from the past year:  
Outcomes of Supplying Medicines to Orphanages in Uganda

Annotation:  
2011-2014

Summarize international activities from the past year:  
G6PD Deficiency in Nigerian Children by Ethnic Group

Annotation:  
Completed

## International Footprint Activities

*\*Summary of activities flagged as international (items also included by type in report above).*

### Consulting and Outside Professional Commitments

Advisory Board Member, MLD/MPS, Takeda. (2020 - Present).	2020 - Present
Advisory Board, Aspartylglycosaminuria, Neurogene. (2019 - Present).	2019 - Present
Advisory Board Member, Bluebird Bio, Inc., Rome, Italy. (November 8, 2018).	November 8, 2018
Advisory Board Member, Genzyme 2nd Working Group on Aldurazyme use post-transplant, Amsterdam, Netherlands. (May 6, 2013 - May 7, 2013).	May 6, 2013 - May 7, 2013

### Presentations

- Lund, T. C.** "Mesenchymal Stem Cells (MSC) to treat active cerebral ALD", ALD Connect Annual Meeting 2023, United States. (November 4, 2023).
- Lund, T. C.** "Brain Engraftment, Biomarkers, and Transplant", ALD Connect Annual Meeting 2023, United States. (November 3, 2023).
- Lund, T. C.** "Success of the Newborn Screen for Adrenoleukodystrophy", Alex TLC Community Weekend Conference, Alex, The Leukodystrophy Charity, Birmingham, England. (April 30, 2023).
- Lund, T. C.** "Transplant for Advanced Cerebral ALD: Risk-Benefit", Alex TLC Community Weekend Conference, Alex, The Leukodystrophy Charity, Birmingham, England. (April 29, 2023).

**Lund, T. C.** "Stem cell Homing to the Bain for Peroxisome Transfer", Minoryx Scientific Expert Meeting, Minoryx, Paris. (February 9, 2023).

**Lund, T. C.** "Sharing Peroxisomes", ALD Connect Annual Meeting. (November 4, 2022).

**Lund, T. C.** "Primary graft failure in pediatric non-malignant disease: An old but critical hurdle", International Congress of BMT 2022, KSBMT, Busan, Korea, Democratic People's Rep. (September 1, 2022).

Pillai, N. R., (Author & Presenter), Gupta, A., (Author), **Lund, T. C., (Author)**, Orchard, P. J., (Author), Braunlin, E., (Author), Department of Pediatrics, Division of Genetics and Metabolism, University of Minnesota,, (Author), Pediatric Blood and Marrow Transplant, University of Minnesota,, (Author), University of Minnesota, (Author), Pediatrics, University of Minnesota, (Author) "Hematopoietic cell transplantation for Mucopolysaccharidosis type I in the presence of decreased cardiac function", 18th Annual WORLD Symposium, San Diego, California. (February 8, 2022).

**Lund, T. C.** "Reproductive Options for ALD Families", 2021 ALD Connect. (March 5, 2021).

**Lund, T. C.** "A (fish)Tale on Two Continents, G6PD biology", Global Health Research Series, University of Minnesota, Minneapolis, Minnesota. (January 29, 2021).

**Lund, T. C.** "Treatment Updates Expert Panel", Alex - The Leukodystrophy Charity. (November 8, 2020).

**Lund, T. C.** "Updates on the Treatment of Cerebral ALD", Alex - The Leukodystrophy Charity. (November 7, 2020).

**Lund, T. C.** "G6PD Deficiency - A Global Perspective", United States Agency for International Development (USAID). (October 22, 2020).

**Lund, T. C.,** Eichler, F. "Debate - Stem Cell Transplant versus Gene Therapy for X-ALD (with Troy **Lund** and Florian Eichler)", The European Society for Blood and Marrow Transplantation IEWP Annual Educational Meeting, London, United Kingdom. (October 11, 2019).

**Lund, T. C.** "Anemia, Hemoglobinopathies, and Thalassemias", 2019 Intergovernmental Panel Physicians Training Summit, Accra, Ghana. (April 9, 2019).

**Discipline/Profession/Interdisciplinary Areas**

ACMG - Lysosomal Storage Disease Variants Curation Expert Panel	2021 - Present
United Leukodystrophy Foundation Scientific Board, approximately 40 hours spent per year	June 1, 2019 - Present
Industry Advisory Council on ALD	2017 - Present
ALD Connect, approximately 80 hours spent per year	June 1, 2016 - Present

**Public/External/Community**

Founder and CEO, Medicine for Sick Children Foundation	2006 - Present
Devoted to fighting illness in developing countries. <a href="http://www.medicineforsickchildren.org">www.medicineforsickchildren.org</a> Member, Health Volunteers Overseas	2005 - 2019