

Anthony D. Sung, MD
Assistant Professor of Medicine, Tenure Track
Division of Hematologic Malignancies and Cellular Therapy
Associate Director, Duke Microbiome Center
Duke University School of Medicine

Education and Training

Stanford University Degree: BS, Science, Technology, & Society	Stanford, CA 2000 – 2002 2003 – 2004
Deep Springs College Degree: n/a	Deep Springs, CA 2002 – 2003
Harvard Medical School Degree: MD with Honors	Boston, MA 2004 – 2008
Johns Hopkins Hospital Intern and Resident, Internal Medicine	Baltimore, MD 2008 – 2011
Duke University School of Medicine Fellow, Hematology/Oncology	Durham, NC 2011 – 2014

Certifications

Board Certified, American Board of Internal Medicine	2011-present
Board Certified, American Board of Hematology	2017-present
Medical Licensure: North Carolina License # 2014-01237	

Positions and Employment

Duke University School of Medicine, Department of Medicine, Division of Hematologic Malignancies and Cellular Therapy Medical Instructor	Durham, NC 2014-2017
Duke University School of Medicine, Department of Medicine Division of Hematologic Malignancies and Cellular Therapy Assistant Professor, Tenure Track	Durham, NC 2017 – Present
Duke Microbiome Center Associate Director	Durham, NC 2017 – Present
Duke Center for the Study of Aging and Human Development Senior Fellow	Durham, NC 2020 – Present

Consultant Appointments

2017 – Present Special Government Employee and Ad Hoc (2017-2019) and Standing Member (2019-present),
Oncologic Drugs Advisory Committee (ODAC), Federal Drug Administration (FDA)

Professional Awards and Special Recognitions

2001	Crohn's and Colitis Foundation of America Student Research Fellowship Award
2002-2003	Full Scholarship, Deep Springs College
2003-2004	Barry M. Goldwater Scholarship (established by U.S. Congress)
2005	Pasteur Summer Research Fellowship
2008	M.D. with Honors, Harvard Medical School, Boston, MA
2009	Basic Student Teaching Award, Department of Medicine, Johns Hopkins Hospital
2010	Certificate of Excellence in Teaching, Johns Hopkins University School of Medicine
2012	Selected to attend the American Association for Cancer Research (AACR) 21st Annual Aspen Workshop: Molecular Biology in Clinical Oncology
2013	Selected to attend The Future of Stem Cell Transplantation: 2nd Annual Mentoring Program for Stem Cell Transplant Fellows
2013	Duke University Hematology/Oncology 25th Annual Fellow Research Retreat Best Presentation by a Second Year Fellow
2013	Selected to attend the American Society of Blood and Marrow Transplantation Clinical Research Training Course
2013-2014	Center for Thrombotic & Hemostatic Disorders Young Investigator Translational Research Skills Development Award
2013-2014	American Society of Hematology Research Training Award for Fellows
2013-2014	Leukemia & Lymphoma Society New Idea Award
2015	American Society for Blood and Marrow Transplantation (ASBMT) New Investigator Award
2017	Finalist, Damon Runyon Clinical Investigator Award
2018-2020	Damon Runyon-Rachleff Innovation Award
2019-2021	American Society of Hematology Scholar Award

Organizations and Activities

2003	Labor Commissioner, Deep Springs College
2003	Member, Budget Advisory Committee, Deep Springs College
2004-2008	Alternate Member, Partners Human Research Committee (IRB), Panel A, Brigham and Women's Hospital
2009-2011	Member, Department of Medicine Quality Improvement Committee, Johns Hopkins Hospital
2011-present	Member, American Society of Hematology
2011-present	Member, American Society of Clinical Oncology
2012-2013	Member, Performance Improvement Oversight Committee, Duke University Health System
2012-present	Member, American Society for Blood and Marrow Transplantation (now American Society for Transplantation and Cellular Therapy)
2014-2017	Member, American Academy of Home Care Medicine
2016-present	Member, Duke Cancer Institute
2016-present	Member, Duke Center for the Genomics of Environmental Systems (now Duke Microbiome Center)
2016-present	Member, Planning Committee for Department of Medicine Fellows' Retreat
2017-present	Associate Director, Duke Microbiome Center
2017-present	Member, Alliance for Clinical Trials in Oncology Cancer in the Older Adult Committee
2017-present	Member, Alliance for Clinical Trials in Oncology Digital Health Working Group
2017-present	Member, Alliance for Clinical Trials in Oncology Young Investigator Committee
2018-present	Member, Protocol Writing Committee, Bone Marrow Transplant Clinical Trials Network 1801
2019	Abstract Reviewer, American Society of Hematology (ASH) Abstracts, Clinical Allogeneic Transplantation: Acute and Chronic GVHD, Immune Reconstitution; Moderator, ASH 2019 Annual Meeting Oral Abstracts on Clinical Allogeneic Transplantation: Acute and Chronic GVHD, Immune Reconstitution
2019-present	Steering Committee, American Society for Transplantation and Cellular Therapy Survivorship Special Interest Group; Moderator, TCT 2019 Annual Meeting Survivorship SIG
2020-present	Senior Fellow, Duke Center for the Study of Aging and Human Development

Teaching Responsibilities and Continuing Education

2015-present	Faculty, Southeastern Fellows Research Skills and Training Workshop, Duck, NC
2016-2018	Faculty, Duke-National University of Singapore Research Skills Workshop, Singapore
2016-present	Lecturer, Duke University School of Medicine, First Year Medical Student Course on “Molecules, Cells, and Tissues”, Lecture on “Chronic Myelogenous Leukemia and Imatinib: A Paradigm for Translational Medicine”
2017-2019	Preceptor, Cancer Care Experience, preceptor for 2 nd year medical students, Duke University School of Medicine
2017-present	Rotation Director, Adult Blood and Marrow Transplantation, Hematology/Oncology Fellowship, Duke University School of Medicine, Durham, NC

Mentoring Activities

<u>Name</u>	<u>Position at Time of Mentorship</u>	<u>Dates</u>	<u>Current Position</u>
Alyssa Bernanke	MD candidate (Duke)	9/1/13-6/30/14	MD/PhD candidate (Duke)
Julia Messina	fellow, infectious diseases (Duke)	7/1/15-8/1/18	Medical Instructor (Duke)
Tara Dalton	MBS candidate (Duke) -> CRS (Duke)	1/1/17-06/01/18	MD candidate (Duke)
Wei Huang	post-doc (Duke)	7/1/17-2/28/19	Consultant, McKinsey
Jill Thompson	MBS candidate (Duke) -> CRS (Duke)	1/1/18-present	ongoing
Vinay Giri	MD candidate (Duke)	1/1/18-present	ongoing
Madhu Eluri	resident, internal medicine (Duke)	1/1/18-present	ongoing
Ko Ko Maung	fellow, hematology/oncology (Duke)	7/1/18-present	ongoing
Syed (Qasim) Hussaini	resident, internal medicine (Duke)	3/1/19-present	ongoing
Sendhijnathan Ramalingam	fellow, hematology/oncology (Duke)	7/1/19-present	ongoing
Prioty Islam	fellow, hematology/oncology (Duke)	7/1/19-present	ongoing
Jacob Suminguit	high school student (NCSSM)	8/22/19-present	ongoing
Alessandro Racioppi	masters student (Duke)	1/6/20-present	ongoing
Jolien Van Opstal	medical student (UZ Leuven, Belgium)	2/4/20-present	ongoing
Helen Tang	medical student (Duke)	2/12/20-present	ongoing

Research Interests

Hematopoietic stem cell transplantation (HCT), with a focus on preventing complications such as infections, gastrointestinal toxicity, and graft-versus host disease (GVHD) through modulation of the microbiome; delivery of care such as home-based HCT and mHealth, medication adherence and behavioral economic incentives; costs associated with HCT, novel cellular therapies; research encompasses murine, phase 1, phase 2, and correlative studies.

Grants (Active)

1R01CA244172-01 NCI	Smith, Sophia (PI) 12/1/2019-8/31/2024
Using a SMART Design to Optimize PTSD Symptom Management Strategies Among Cancer Survivors	
Study aims: 1) Evaluate the effectiveness of Cancer Distress Coach relative to a control in reducing PTSD symptoms among HCT cancer survivors; 2) Assess treatment regimens embedded in the trial design for PTSD symptom reduction; and 3) Estimate tailored treatment regimens for PTSD and related outcomes that generate hypotheses about if and how treatment should be tailored. These aims address symptom management - one of ten National Cancer Moonshot Initiative recommendations and the underserved have the greatest opportunity for benefit.	
Role: Co-investigator	
N/A Merck	Sung, Anthony (PI) 1/25/2018 – 1/1/2023
Impact of Clinically Significant Cytomegalovirus Infection and Its Sequelae on Medical Resource Use, Costs, and Outcomes in Patients Undergoing Allogeneic Hematopoietic Cell Transplantation	
The goal of this investigator-initiated study is to determine costs and outcomes associated with cytomegalovirus infection.	

5U01-AI133604-02

NIAID

Mitigators of Radiation-Induced Endovascular Injury: Targeting Tie2 and Thrombocytopenia

The goal is to determine if a Tie2 inhibitor or platelet substitute, individually or combined, can mitigate radiation-induced endothelial injury.

Role: Co-investigator

Chao, Nelson (PI)

7/1/17-6/30/22

ASH Scholar Award

American Society of Hematology

Home Transplant to Preserve the Microbiota and Decrease GVHD

Goals: The goals are to evaluate the impact of home care on the gut microbiota, GVHD (primary endpoint) and other clinical outcomes. To evaluate the metabolomics profile as potential predictive markers of GVHD, and other clinical outcomes in the home vs. standard care HCT cohorts and evaluate blood based biomarkers of immune/inflammatory response as potential predictive biomarkers of GVHD and other clinical outcomes in the home vs. standard care HCT cohorts

Sung, Anthony (PI)

7/1/2019-6/30/2021

1R21-AG066388-01

NIH/NIA

Evaluating Effects of Age-Related Microbiota Modulations in Hematopoietic Stem Cell Transplant Patients

Goals: This study evaluates age-related microbiome changes and its impact on treatment outcome and progression in allogeneic hematopoietic stem cell transplantation. Results can increase knowledge of microbiota, alteration in microbiota due to age, care environment, diet, physical activity and association with patients' clinical outcomes.

Sung, Anthony (PI)

8/1/19-4/30/21

5R01-CA203950-03

NCI

Patient-centered home-based hematopoietic stem cell transplantation

The goal is to determine the impact of patient-centered home-based hematopoietic stem cell transplantation on graft-versus-host disease in a randomized phase 2 trial.

Role: Co-investigator

Chao, Nelson (PI)

5/1/16-4/30/21

Damon Runyon-Rachleff Innovation Award

Damon Runyon Cancer Research Foundation

Personalized Prebiotics to Optimize Microbiota Metabolism and Improve Transplant Outcomes

This proposal is the first to attempt personalizing prebiotic therapies based on a subject's microbiota. This approach is expected to preserve a patient's microbiota during HCT, and ultimately lower risk of infection, GVHD, and disease relapse.

Sung, Anthony (Co-PI)

1/1/18 – 12/31/20

N/A

Novartis

Prevention of Gastrointestinal Toxicity from Total Body Irradiation or High Dose Chemotherapy with SOM 230

The goal of this multi-institutional investigator-initiated phase 2 study is to determine if SOM 230 (pasireotide), administered prior to and concurrently with myeloablative conditioning, can prevent gastrointestinal toxicity and graft-versus-host disease after allogeneic hematopoietic stem cell transplantation.

Sung, Anthony (PI)

12/1/13-12/31/20

1R21-CA223419-01A1

NCI

Keratinocyte targeted strategies for treatment of cutaneous GVHD

This study evaluates drugs targeting keratinocytes and the potential to prevent cutaneous GVHD.

Role: Co-investigator

Zhang, Jennifer (PI)

12/1/18 – 11/30/20

1R21-CA235083-01

NCI

Development and Pilot Testing of a Hybrid In Person and mHealth Coping Skills Training Intervention for Symptom Management and Daily Steps in Stem Cell Transplant Patient

This study develops in person and mobile health (mHealth) behavioral training strategies to address symptom management in stem cell transplant patients.

Role: Co-investigator

Kelleher, Sarah

9/1/18 – 8/31/20

5P30-AG028716-13

NIA

Duke Claude D. Pepper Older Americans Independence Center Research Education Component Scholar

REC Project Title: High intensity interval training to improve pre- and peri-transplant function and outcomes

The goal is to determine the impact of pre-transplant high intensity interval training on pre- and peri-transplant functional status and transplant outcomes.

Sung, Anthony (PI)

7/1/18 – 6/30/20

1R01HL124112-01A

NHLBI

Microbiota-focused Strategies to Mitigate GVHD

The project aims to study the effects of intestinal flora composition on GVHD, to evaluate strategies to treat microbiota injury and GVHD, and to develop strategies to prevent microbiota injury in allo BMT patients.

Role: Site PI

Jenq, Robert (PI)

8/15/15-5/31/20

Grants (Past)

N/A

Memorial Sloan Kettering Cancer Center

MSKCC Microbiota

Our goal is to collect and analyze stool samples from hematopoietic stem cell transplant patients to understand how the gut microbiome impacts transplant outcomes.

Sung, Anthony (PI)

4/27/18 – 4/26/19

N/A

Enterome, Inc.

Evaluation of the effect of EB8018 on an acute murine model of GvHD

Our goal is test EB8018, a FimH antagonist, and its ability to prevent or reduce graft-versus-host disease.

Sung, Anthony (PI)

3/21/18 – 3/20/19

Fund to Retain Clinical Scientists

Doris Duke Charitable Foundation

In-home allogeneic stem cell transplantation to preserve the gut microbiota and prevent GVHD

This award is given as a supplement to expand the scope of 5KL2TR001115-03

Sung, Anthony (PI)

11/1/16-12/31/18

5KL2TR001115-03

NCATS

Duke CTSA Research Career Development Award (Duke CTSA KL2)

KL2 Project Title: In-home allogeneic hematopoietic stem cell transplantation to preserve the gut microbiota and prevent graft-versus-host disease

The goal is to determine if in-home care can improve outcomes after hematopoietic stem cell transplantation by allowing patients to stay at home and thereby preserve their natural gut microbiota. This project will also explore additional explanatory mediators such as nutrition, social support, and exercise.

Sung, Anthony (PI)

7/1/15-6/30/18

N/A

Collective BioTherapy, Inc.

Targeting Regulatory B10 cells for Treating Graft Versus Host Disease and Immunodeficiency

The purpose for this study is to develop regulatory B10 cells as a novel cellular therapy for graft-versus-host disease and immunodeficiency.

Role: Co-investigator

Sleasman, John (PI)

07/01/15 – 06/30/18

HHSN272201400034C

DHHS/NIH

A Novel Nanoparticle Platelet Analogue for Radiation-Induced Thrombocytopenia

The goals of this project are to: 1) Determine whether Fibrinoplate-S can be used to rescue animals from lethal doses of irradiation, 2) Delineate the mechanisms by which Fibrinoplate-S prevents death from bleeding after lethal irradiation and 3) Test this hypothesis in a nonhuman primate model of radiation injury.

Role: Co-investigator

Chen, Benny (PI)

9/1/14-8/31/16

NIA-8998-14

Leukemia & Lymphoma Society

A Novel Fibrinogen-Coated Nanosphere for Treatment of Thrombocytopenia

The goal is to establish the efficacy of fibrinogen-coated nanospheres in preventing bleeding related to thrombocytopenia and elucidate the hemostatic mechanisms by which this occurs.

Sung, Anthony (PI)

10/1/2013 – 9/30/2014

Research Training Award-Fellow

American Society of Hematology

Memory T Cells in Allogeneic Hematopoietic Stem Cell Transplantation

The goal is to determine the maximum tolerated dose of a naïve T-cell depleted donor lymphocyte infusion (DLI) following HLA-matched and HLA-mismatched, allogeneic stem cell transplantation. We will assess the GVHD-inducing potential and monitor the impact this DLI will have on post-transplant immune recovery.

Sung, Anthony (PI)

7/1/2013-6/30/2014

Young Investigator Translational Research Skills Development Award

Duke Center for Thrombotic and Hemostatic Disorders

A Novel Fibrinogen-Coated Nanosphere for Treatment of Thrombocytopenia

The goal is to establish the efficacy of fibrinogen-coated nanospheres in preventing bleeding related to thrombocytopenia and elucidate the hemostatic mechanisms by which this occurs.

Sung, Anthony (PI)

6/1/2013-5/31/2014

T32 HL007057-37

NHLBI

Transfusion Medicine and Hematology

Basic and clinical research training to physicians and scientists on problems related to hematologic diseases, including the science of transfusion, cellular therapy, and hematopoietic stem cell transplantation.

Role: Trainee

Telen, Marilyn (PI)

7/1/12-6/30/13, 7/1/14-6/30/15

Publications

1. **Sung AD**, Anderson ME, Zurakowski Z, Hornicek FJ, Gebhardt MC. Unicameral bone cyst: a retrospective study of three surgical treatments. *Clin Orthop Relat Res.* 2008 Oct;466(10):2519-26. PMID 18679761. PMCID: PMC2584314
2. **Sung AD**, Collins MC, Smith AK, Sanders AM, Quinn MA, Block SD, Arnold RM. Crying, stress, and sadness: experiences and attitudes of third year medical students and interns. *Teach Learn Med.* 2009 Jul;21(3):180-7. PMID 20183336
3. Dezern AE, **Sung A**, Kim S, Smith BD, Karp JE, Gore SD, Jones RJ, Fuchs E, Luznik L, McDevitt M, Levis M. Role of allogeneic transplant for FLT3/ITD acute myeloid leukemia: outcomes from 133 consecutive newly diagnosed patients from a single institution. *Biol Blood Marrow Transplant.* 2011 Sept;17(9):1404-9. PMID 21324374. PMCID: PMC3110512.
4. Evans MW, **Sung AD**, Gojo I, Tidwell M, Greer J, Levis M, Karp J, Baer MR. Risk assessment in human immunodeficiency virus-associated acute myeloid leukemia. *Leuk Lymphoma.* 2012 Apr;53(4):660-4. PMID 21942284
5. **Sung AD**, Rizzieri D, Li Z, Beaven AW. Bortezomib combined with rituximab, fludarabine, mitoxantrone, and dexamethasone (R-VFND) for the treatment of relapsed/refractory follicular lymphoma. *J Clin Trials.* 2012 Aug;2(3):120. DOI:10.4172/2167-0870.1000120
6. **Sung AD**, Grima DT, Bernard LM, Brown S, Carrum G, Holmberg L, Horwitz ME, Liesveld JL, Kanda J, McClune B, Shaughnessy P, Tricot GJ, Chao NJ. Outcomes and costs of autologous stem cell mobilization with chemotherapy plus G-CSF versus G-CSF alone. *Bone Marrow Transplantation.* 2013 Nov; 48(11): 1444-9. PMID: 23749109. PMCID: PMC3797171.
7. Wild D, **Sung AD**, Cardona D, Cirricione C, Sullivan K, Detweiler C, Shealy M, Balmadrid B, Rowe KL, Chao N, Piryani S, Karimabad HM, Martin P, Poleski M. The Diagnostic Yield of Site and Symptom-Based Biopsies for

Acute Gastrointestinal Graft-Versus-Host Disease: A 5-Year Retrospective Review. *Dig Dis Sci*. 2016 Mar;61(3):806-13. doi: 10.1007/s10620-015-3938-8. Epub 2015 Nov 4. PMID: 26537485

8. **Sung AD***, Sung JA*, Thomas S, Hyslop T, Gasparetto C, Long G, Rizzieri DA, Sullivan KM, Corbet K, Broadwater G, Chao NJ, Horwitz ME. Universal surgical mask usage reduces the prevalence of parainfluenza virus 3 in adult recipients of hematopoietic stem cell transplantation. *Clin Infect Dis*. 2016 Aug 1. Pii: ciw451. [Epub ahead of print] PMID: 27481873 *These authors contributed equally to this manuscript
9. Green MM, Chao N, Chhabra S, Corbet K, Gasparetto C, Horwitz A, Li Z, Venkata JK, Long G, Mims A, Rizzieri D, Sarantopoulos S, Stuart R, **Sung AD**, Sullivan K, Costa L, Horwitz M, Kang Y. Plerixafor (a CXCR4 antagonist) following myeloablative allogeneic hematopoietic stem cell transplantation enhances hematopoietic recovery. *J Hematol Oncol*, accepted for publication. *J Hematol Oncol*. 2016 Aug 17;9(1):71. PMID: 27535663
10. Sivaraj D, Green MM, Li Z, **Sung AD**, Sarantopoulos S, Kang Y, Long GD, Horwitz ME, Lopez RD, Sullivan KM, Rizzieri DA, Chao NJ, Gasparetto C. Outcomes of Maintenance Therapy with Bortezomib after Autologous Stem Cell Transplantation for Patients with Multiple Myeloma. *Biol Blood Marrow Transplant*. 2016 Nov 14. pii: S1083-8791(16)30488-8. doi: 10.1016/j.bbmt.2016.11.010. [Epub ahead of print] PMID: 27856369
11. Peled J, Devlin S, Staffas A, Lumish M, Khanin R, Littmann ER, Ling L, Kosuri S, Maloy M, Slingerland JB, Ahr KF, Porosnicu Rodriguez KA, Shono Y, Slingerland AE, Docampo MD, **Sung AD**, Weber D, Alousi AM, Gyurkocza B, Ponce D, Barker JN, Perales M, Giralt SA, Taur Y, Pamer EG, Jenq RR, van den Brink MR. Intestinal microbiota and relapse after hematopoietic-cell transplantation. *J Clin Oncol*. 2017 Mar 15;JCO2016703348. [Epub ahead of print] PMID: 28296584
12. Anand S, Thomas S, Hyslop T, Adcock J, Corbet K, Gasparetto C, Lopez R, Long GD, Morris AK, Rizzieri DA, Sullivan KM, **Sung AD**, Sarantopoulos S, Chao NJ, Horwitz ME. Transplantation of Ex Vivo Expanded Umbilical Cord Blood (NiCord) Decreases Early Infection and Hospitalization. *Biol Blood Marrow Transplant*. 2017 Apr 6. PMID: 28392378
13. Anand S, Thomas S, Corbet K, Gasparetto C, Long GD, Lopez R, Morris AK, Rizzieri DA, Sullivan KM, **Sung AD**, Sarantopoulos S, Chao NJ, Horwitz ME. Adult Umbilical Cord Blood Transplantation Using Myeloablative Thiotepa, Total Body Irradiation, and Fludarabine Conditioning. *Biol Blood Marrow Transplant*. 2017 Jul 17. pii: S1083-8791(17)30577-3. doi: 10.1016/j.bbmt.2017.06.027. [Epub ahead of print] PMID: 28729147
14. Guo M, Chao NJ, Li JY, Rizzieri DA, Sun QY, Mohrbacher A, Krakow EF, Sun WJ, Shen XL, Zhan XR, Wu DP, Liu L, Wang J, Zhou M, Yang LH, Bao YY, Dong Z, Cai B, Hu KX, Yu CL, Qiao JH, Zuo HL, Huang YJ, **Sung AD**, Qiao JX, Liu ZQ, Liu TQ, Yao B, Zhao HX, Qian SX, Liu WW, Forés R, Duarte RF, Ai HS; Microtransplantation Interest Group. HLA-Mismatched Microtransplant in Older Patients Newly Diagnosed With Acute Myeloid Leukemia: Results From the Microtransplantation Interest Group. *JAMA Oncol*. 2017 Sep 14. doi: 10.1001/jamaoncol.2017.2656. [Epub ahead of print] PMID: 2891043
15. O'Sullivan ML, Shelby RA, Dorfman CS, Kelleher SA, Fisher HM, Rowe Nichols KA, Keefe FJ, **Sung AD**, Somers TJ. The effect of pre-transplant pain and chronic disease self-efficacy on quality of life domains in the year following hematopoietic stem cell transplantation. *Support Care Cancer*. 2018 Apr;26(4):1243-1252. doi: 10.1007/s00520-017-3947-6. Epub 2017 Nov 9. PMID: 29124418
16. **Sung AD**, Hassan S, Cardona DM, Wild D, Nichols KR, Mehdikhani H, Balmadrid B, Detweiler CJ, Shealy M, Cirrincione C, Li Z, Poleski M, Dalton TE, Siamakpour-Reihani S, Chao NJ, Sullivan KM. Late Gastrointestinal Complications of Allogeneic Hematopoietic Stem Cell Transplantation in Adults. *Biol Blood Marrow Transplant*. 2018 Apr;24(4):734-740. doi: 10.1016/j.bbmt.2017.12.772. Epub 2017 Dec 12.
17. DeFilipp Z, Peled JU, Li S, Mahabamunuge J, Dagher Z, Slingerland AE, Del Rio C, Valles B, Kempner ME, Smith M, Brown J, Dey BR, El-Jawahri A, McAfee SL, Spitzer TR, Ballen KK, **Sung AD**, Dalton TE, Messina JA, Dettmer K, Liebisch G, Oefner P, Taur Y, Pamer EG, Holler E, Mansour MK, van den Brink MRM, Hohmann E, Jenq RR, Chen YB. Third-party fecal microbiota transplantation following allo-HCT reconstitutes microbiome diversity. *Blood Adv*. 2018 Apr 10;2(7):745-753. PMID: 29592876

18. Cardona DM, Detweiler CJ, Shealy MJ, **Sung AD**, Wild DM, Poleski MH, Balmadrid BL, Cirrincione CT, Howell DN, Sullivan KM. Use of the National Institutes of Health Consensus Guidelines Improves the Diagnostic Sensitivity of Gastrointestinal Graft-Versus-Host Disease. *Arch Pathol Lab Med*. 2018 Apr 26. doi: 10.5858/arpa.2017-0054-OA. [Epub ahead of print] PMID: 29697275
19. Messina JA, Sinha R, Starr K, Arshad M, Alexander BD, Chao NJ, **Sung AD**. Clinical and Genomic Characterization of Recurrent Enterococcal Bloodstream Infection in Patients With Acute Leukemia. *Open Forum Infect Dis*. 2018 May 5;5(6):ofy107. doi: 10.1093/ofid/ofy107. eCollection 2018 Jun. PMID: 29977964
20. Detweiler CJ, Mueller SB, **Sung AD**, Saullo JL, Prasad VK, Cardona DM. Brincidofovir (CMX001) Toxicity Associated With Epithelial Apoptosis and Crypt Drop Out in a Hematopoietic Cell Transplant Patient: Challenges in Distinguishing Drug Toxicity From GVHD. *J Pediatr Hematol Oncol*. 2018 Aug;40(6):e364-e368. doi: 10.1097/MPH.0000000000001227. PMID: 29846280
21. Spees L, Martin PL, Kurtzberg J, Stokhuyzen A, McGill L, Prasad VK, Driscoll TA, Parikh SH, Page KM, Vinesett R, Severyn C, **Sung AD**, Proia AD, Jenkins K, Arshad M, Steinbach WJ, Seed PC, Kelly MS. Reduction in Mortality after Umbilical Cord Blood Transplantation in Children over a 20-Year Period (1995-2014). *Biol Blood Marrow Transplant*. 2019 Apr;25(4):756-763. doi: 10.1016/j.bbmt.2018.11.018. Epub 2018 Nov 24. PMID: 30481599
22. Wong HY, **Sung AD**, Lindblad KE, Sheela S, Roloff GW, Rizzieri D, Goswami M, Mulé MP, Ramos NR, Tang J, Thompson J, DeStefano CB, Romero K, Dillon LW, Kim DY, Lai C, Hourigan CS. Molecular Measurable Residual Disease Testing of Blood During AML Cytotoxic Therapy for Early Prediction of Clinical Response. *Front Oncol*. 2019 Jan 15;8:669. doi: 10.3389/fonc.2018.00669. eCollection 2018. PMID: 30697529
23. Cardones AR, Sullivan KM, Green C, Chao NJ, Rowe-Nichols K, Bañez LL, Burton CS, Horwitz ME, Long GD, Rao CL, Sarantopoulos S, Sidhu-Malik N, **Sung AD**, Hall RP 3rd. Interrater Reliability of Clinical Grading Measures for Cutaneous Chronic Graft-vs-Host Disease. *JAMA Dermatol*. 2019 Jul 1;155(7):833-837. doi: 10.1001/jamadermatol.2018.5459 PMID: 30994873
24. Saullo JL, Li Y, Messina JA, Thompson J, Dalton T, Giri VK, Reed SD, Miller R, Horwitz ME, Alexander BD, Saullo JL, Li Y, Messina JA, Thompson J, Dalton T, Giri VK, Reed SD, Miller R, Horwitz ME, Alexander BD, **Sung AD**. Cytomegalovirus in Allogeneic Hematopoietic Transplantation: Impact on Costs and Clinical Outcomes Utilizing a Preemptive Strategy. *Biol Blood Marrow Transplant*. 2019 Nov 8. pii: S1083-8791(19)30745-1. doi: 10.1016/j.bbmt.2019.11.005. [Epub ahead of print] PMID: 31712193
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*These authors contributed equally
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Reviews

1. **Sung AD**, Cheng S, Moslehi J, Scully EP, Prior JM, Loscalzo J. Hepatocellular carcinoma with intracavitary involvement: a case report and review of the literature. *Am J Cardiol*. 2008 Sept 1;102(5):643-5. PMID 18721529
2. **Sung AD**, Chao NJ. Concise Review: Acute Graft-Versus-Host Disease: Immunobiology, Prevention, and Treatment. *Stem Cells Trans Med*. 2013 Jan; 2(1):25-32. PMID 23283494. PMCID: PMC3659744.
3. Rein LA, **Sung AD**, Rizzieri DA. New Approaches to manipulate minimal residual disease after allogeneic stem cell transplantation. *Int J Hematol Oncol*. 2013;2(1):1-20. PMID: 24303095. PMCID: PMC3841006.
4. **Sung AD**, Chao NJ. Acute graft-versus-host disease: Are we close to bringing the bench to the bedside? *Best Pract & Res: Clin Hematol* 2013 Sep;26(3):285-92. PMID: 24309532. PMCID: PMC3867819.
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Chapters in Books

1. **Sung AD**, Kang Y, Chao NJ (2015). Immune Reconstitution. In *Hematopoietic Stem Cell Transplantation: A Handbook for Clinicians, 2nd Edition*. Ed. John R. Wingard, Dennis A. Gastineau, Helen L. Leather, et al. American Association of Blood Banks (AABB)

Selected Poster and Oral Abstracts (first, second, or last author)

1. **Sung AD**, Anderson ME, Zurakowski Z, Hornicek FJ, Gebhardt MC. Unicameral bone cyst: a retrospective study of three surgical treatments. **Oral** presentation at the Annual Meeting of the Musculoskeletal Tumor Society, Key West, FL, June 10, 2006
2. **Sung AD**, Collins MC, Smith AK, Sanders AM, Quinn MA, Block SD, Arnold RM. Crying, stress, and sadness: experiences and attitudes of third year medical students and interns. **Oral** presentation at the Annual Meeting of the Society for General Internal Medicine, Toronto, Canada, April 26, 2007.

3. **Sung AD**, Sung JA, Chute JP, Gasparetto C, Long G, Rizzieri DA, Sullivan KM, Corbet K, Hars V, Lan L, Broadwater G, Chao NJ, Horwitz ME. Surgical Mask Usage Reduces the Incidence of Parainfluenza Virus 3 in Recipients of Stem Cell Transplantation. **Oral** presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 10, 2012.
4. **Sung AD**, Yen RC, DeOliveira D, Jiao Y, Piryani S, Bernanke A, Hall S, Klemp K, Arepally GM, Hoffman M, Ortel TL, Chao NJ, Chen BJ. Fibrinogen Coated Nanospheres Prevent Thrombocytopenia-related Bleeding. **Oral** presentation at the Annual Meeting of the American Society of Blood and Marrow Transplantation, San Diego, CA, February 12, 2015.
5. **Sung AD**, Cardona DM, Rowe K, Mehdikhani H, Detweiler CJ, Shealy M, Wild D, Poleski M, Cirrincione C, Li Z, Chao NJ, Sullivan KM. Late Gastrointestinal Complications of Allogeneic Hematopoietic Stem Cell Transplantation. Poster presentation at the Annual Meeting of the American Society of Blood and Marrow Transplantation, San Diego, CA, February 12, 2015.
6. **Sung AD**, Shah N, Jonassaint JC, Romero K, Dalton T, Nichols KR, Fish L and Chao NJ, *Patient Interest in and Feasibility of a Mobile Health App to Support Patients Undergoing Hematopoietic Stem Cell Transplantation*. Poster presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 9, 2017.
7. Messina JA, **Sung AD**, Chao NJ, and Alexander BD. *The Timing and Epidemiology of Enterococcus Faecium and E. Faecalis Bloodstream Infections (BSI) in Patients with Acute Leukemia Receiving Chemotherapy*. Poster presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 9, 2017
8. Huang W, Bush A, Chao NJ, Chen BJ, and **Sung AD**, *Syngeneic Fecal Microbiota Transplant Effectively Attenuated Graft-Versus-Host Disease after Bone Marrow Transplantation in Mice*. Poster presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 11, 2017.
9. **Sung AD**, de Castro CM, LeBlanc TW, Long GD, Adams DB, Brander DM, Dave S, Diehl LF, Doan PL, Therese Hennig T, Kang Y, McKinney MS, Rein LAM, Sipkins DA, Yang Y, Chao NJ, and Rizzieri DA, *Clinical Outcomes of Microtransplantation for Older Adults with Acute Myeloid Leukemia*. Poster presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 11, 2017.
10. **Sung AD**, Nichols KR, Messina JA, Romero K, Dalton T, Bush A, Covington M, Shelby R, Frith J, Gasparetto CJ, Horwitz ME, Long GD, Lopez R, Rizzieri DA, Sarantopoulos S, Sullivan K, and Chao NJ. *Hematopoietic Stem Cell Transplantation at Home*. **Oral** presentation at the Annual Meeting of the American Society of Hematology, Atlanta, GA, December 11, 2017.
11. Lowder YP, Romero K, Lew M, Ren Y, Pastva AM, Morey MC, Hall KS, Cohen HJ, Chao NJ, **Sung AD**. *Geriatric Assessment Before Hematopoietic Stem Cell Transplant Identifies Deficits Across All Ages*. Poster presentation at the Annual Meeting of the Gerontological Society of America, Austin, TX, November 13, 2019.
12. Giri VK, Kegerreis KG, Ren Y, Bohannon LM, Lobaugh-Jin E, Messina JA, Matthews A, Allen DH, Mowery YM, Saullo JL, Jung SH, Choi T, Gasparetto CJ, Horwitz ME, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Chao NJ, **Sung AD**. *Daily Chlorhexidine Gluconate Bathing Reduces the Rate of Bloodstream Infections in Adults Undergoing Inpatient Hematopoietic Stem Cell Transplantation*. Poster presentation at the Annual Meeting of the American Society of Hematology, Orlando, FL, December 7, 2019.
13. Lew MV, Ren Y, Lowder YP, Romero K, Thompson JC, Bohannon LM, Cohen H, Bartlett DB, Pastva AM, Morey M, Hall K, Smith P, Peters KB, Somers T, Kelleher S, Smith S, Wischmeyer P, Lin P, Thorpe G, Minor K, Adler A, Wiggins K, Hennig T, Helms T, Welch R, Hicks W, Eren M, Porter R, Matthews B, Liu J, Andrew W, Aberant T, Engemann AK, Henshall B, Darby M, Valea R, Proch C, Dellascio M, Pittman A, Choi T, Gasparetto C, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Horwitz ME, Chao NJ, **Sung AD**. *Geriatric Assessment Identifies Impairments in Younger Candidates for Allogeneic Hematopoietic Stem Cell Transplantation*. Poster presentation at the Annual Meeting of the American Society of Hematology, Orlando, FL, December 7, 2019.

14. Bohannon LM, Page KM, Ren Y, Jung SH, Giri VK, Lew MV, Kelly MS, Choi T, Gasparetto C, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Chao NJ, Horwitz ME, **Sung AD**. *Decreased Mortality After the First Year of Allogeneic Hematopoietic Stem Cell Transplant in Recipients of Umbilical Cord Blood vs. Matched Related or Matched Unrelated Donors*. Poster presentation at the Annual Meeting of the American Society of Hematology, Orlando, FL, December 9, 2019.

15. Smith PJ, Perea E, Thompson JC, Wasserman BR, Bohannon LM, Choi T, Gasparetto C, Horwitz ME, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Chao NJ, **Sung AD**. *Clinical and Neuroimaging Predictors of Post-Transplant Delirium*. Poster presentation at the Transplantation & Cellular Therapy Meetings of the American Society for Transplantation and Cellular Therapy (ASTCT) and the Center for International Blood & Marrow Transplant Research (CIBMTR), Orlando, FL, February 20, 2020.

16. Smith PJ, Lew MV, Lowder YP, Romero KM, Thompson JC, Bohannon LM, Pittman A, Artica A, Choi T, Gasparetto C, Horwitz ME, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Sullivan KM, Chao NJ, **Sung AD**. *Cognitive Impairment in Allogeneic Hematopoietic Stem Cell Transplantation Candidates*. Poster presentation at the Transplantation & Cellular Therapy Meetings of the American Society for Transplantation and Cellular Therapy (ASTCT) and the Center for International Blood & Marrow Transplant Research (CIBMTR), Orlando, FL, February 20, 2020.

17. Ramalingam S, Siamakpour-Reihani S, Bohannon LM, Ren Y, Sibley A, Nixon A, Spitzer T, Brown J, Lyu J, Xie J, Choi T, Gasparetto C, Horwitz ME, Long GD, Lopez RD, Rizzieri DA, Sarantopoulos S, Chao NJ, and **Sung AD**. Phase II trial of Pasireotide to prevent GI toxicity and acute GVHD in allogeneic HSCT. **Oral** presentation at the Transplantation & Cellular Therapy Meetings of the American Society for Transplantation and Cellular Therapy (ASTCT) and the Center for International Blood & Marrow Transplant Research (CIBMTR), Orlando, FL, February 21, 2020.

18. Thompson JC, Ren Y, Romero KM, Lew MV, Bush AT, Messina JA, Jung SH, Miller JM, Zenko Z, Jenq RR, Peled JU, van den Brink MRM, Chao NJ, Shrimel MG, **Sung AD**. *Financial Incentives to Increase Stool Collection Rates for Microbiome Studies in Adult Bone Marrow Transplant Patients*. Poster presentation at the Transplantation & Cellular Therapy Meetings of the American Society for Transplantation and Cellular Therapy (ASTCT) and the Center for International Blood & Marrow Transplant Research (CIBMTR), Orlando, FL, February 22, 2020.

Reviewer (manuscript)

1.	Biology of Blood and Marrow Transplantation	2013-Present
2.	Radiation Research	2016-Present
3.	Open Forum Infectious Diseases	2017-Present
4.	Clinical Infectious Diseases	2020-Present

Reviewer (grants)

1.	National Science Centre, Poland	2018
2.	Health Review Board, Ireland	2019

Federal Drug Administration (FDA) Oncologic Drug Advisory Committee (ODAC) Meetings

1. Ad Hoc Member (Voting), July 11, 2017 ODAC Meeting, BLA 761060, Mylotarg (gemtuzumab ozogamicin), Applicant: Wyeth Pharmaceuticals Inc., a subsidiary of Pfizer Inc.
2. Ad Hoc Member (Voting), March 7, 2018 ODAC Meeting, BLA 125557, Blincyto (blinatumomab), Applicant: Amgen, Inc.

3. Ad Hoc Member (Voting), May 14, 2019 ODAC Meeting, NDA 212166, Quizartinib, Applicant: Daiichi Sankyo, Inc.
4. Member, December 17, 2019 ODAC Meeting, sNDA 208558/010, Olaparib, Applicant: AstraZeneca Pharmaceuticals, LP
5. Member, December 18, 2019 ODAC Meeting, NDA 211723, Tazemetostat, Applicant: Epizyme, Inc.

Invited Lectures and Presentations

1. Warren Alpert Medical School of Brown University, “*Novel Therapies in Myeloid Malignancies*”, 4/06/2016
2. Washington University School of Medicine “Fibrinogen-coated nanospheres prevent thrombocytopenia-related bleeding”, 5/17/2016
3. NIH Chronic GVHD Study Group Intramural Retreat, NIH Stone House, Bethesda, MD, “*Targeting Neutrophil Elastase to Prevent and Treat GVHD*”, 2/06/2018,
4. Cincinnati Children’s Hospital Medical Center, monthly Translational Cancer Research Seminar Series, “*Home-Based Hematopoietic Stem Cell Transplantation*”, 5/31/2018.
5. ASTCT Survivorship Special Interest Group Workshop, TCT, Orlando, FL, “*Mobile Health and Survivorship*”, 2/19/2020.
6. TCT Nursing Conference, TCT, Orlando, FL, “*Hematopoietic Stem Cell Transplantation and the Microbiota*”, 2/21/2020.