

Curriculum Vitae
Nirali N. Shah, MD, MHSc

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Contact Information

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Foreign Languages: Spanish-working knowledge; Gujarati-working knowledge

Education

1997-2000 B.S. (Secondary Education in Chemistry), University of Illinois, Chicago, IL

2000-2004 M.D., University of Illinois, College of Medicine, Chicago, IL

2010-2012 MHSc, (Clinical Research) Duke University-National Institutes of Health, Bethesda, MD

Post Graduate Education and Training

2004-2005 Internship, Massachusetts General Hospital and Boston Children's Hospital, Harvard Combined Internal Medicine-Pediatrics Residency Program, Boston, MA

2005-2008 Resident, Massachusetts General Hospital and Boston Children's Hospital, Harvard Combined Internal Medicine-Pediatrics Residency Program, Boston, MA

2007-2008 Chief Resident, Harvard Combined Internal Medicine/Pediatrics Residency Program, Boston MA

2009-2013 Pediatric Hematology/Oncology Fellowship Program, Johns Hopkins Hospital, Baltimore, MD and National Cancer Institute (NCI), Bethesda, MD

2013-2015 Clinical Fellow, Advanced Studies Program in Pediatric Oncology, Pediatric Oncology Branch, NCI, Bethesda, MD

2013-2014 American Society of Transplantation and Cellular Therapy Clinical Research Training Course

2020-2021 NCI Senior Executive Enrichment and Development (SEED) Training

2020-2021 American Society of Transplantation and Cellular Therapy Leadership Course

2024-2025 Executive Leadership in Academic Medicine (ELAM) Fellow

2024-Present Enrolled at JHH Carey Business School, Flexible MBA program

Certifications

2008-Present American Board of Internal Medicine

2008-Present American Board of Pediatrics

2013-Present American Board of Pediatrics, Hematology/Oncology

Medical Licensures

2008-2018 District of Columbia Medical License (Inactive)

2013-Present Maryland Medical License (Active)

Employment History

Academic Appointments

2008-2009	Assistant Clinical Professor of Pediatrics, George Washington University
2013-2019	Instructor in Pediatric Oncology, Part-Time, Johns Hopkins University
2018-2022	Assistant Professor in Pediatric Oncology, Part-Time, Johns Hopkins University
2015-2017	Assistant Research Physician, Pediatric Oncology Branch, NCI
2017-2019	Associate Research Physician, Pediatric Oncology Branch, NCI
2019-2025	Tenure-track investigator, NCI
2025-2026	NIH Senior Investigator (with tenure)
2026-Present	Professor, University of Maryland School of Medicine
2026-Present	Associate Director for Translational Research, University of Maryland Greenebaum Comprehensive Cancer Center

Clinical Positions

2008-2009	Associate Physician, Emergency Department, Children's National Medical Center, Washington DC
2013-2019	Staff Clinician, Pediatric Oncology Branch, Center for Cancer Research, NCI
2019-2026	Head, Hematologic Malignancies Section (Leukemia, Lymphoma, Transplantation and Cellular Therapy)
2026-Present	Director, Pediatric/Adolescent and Young Adult Cell and Gene Therapy Program, University of Maryland Golisano Children's Hospital

Other Employment

2025-Present	Editor-in-Chief, <i>Pediatric, Adolescent and Young Adult Cancer</i> , American Cancer Society,
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Honors and Awards

1997-2000	University Scholar, University of Illinois at Chicago
1997-2000	Guaranteed Professional Program Admissions (GPPA), University of Illinois at Chicago
2000	University Honors, University of Illinois at Chicago
2000	Rietz Award (top chemistry student), University of Illinois at Chicago
2002	Pathology Honor Society (top pathology student)
2003	AOA Honor Society, University of Illinois College of Medicine, Chicago
2004	Graduation with Honors, University of Illinois College of Medicine, Chicago
2004	Rute Medenis Prize in Pediatrics, University of Illinois College of Medicine, Chicago
2004	Gold Humanism Society
2004	Grove Outstanding Student Award, University of Illinois College of Medicine, Chicago
2004	Sustained Service Award, University of Illinois College of Medicine, Chicago
2004	Student Leadership Award, University of Illinois College of Medicine, Chicago
2007	Yale/Johnson & Johnson Physician Scholars International Health
2011	The American Society of Hematology Achievement Award for Trainee Abstract
2012	Young Investigator Award, National Cancer Institute 2 nd International Workshop on the Biology, Prevention and Treatment of Relapse after Allogeneic Hematopoietic Stem Cell Transplantation
2012	American Society for Blood and Marrow Transplantation Clinical Research Training Course
2013	Young Investigator Travel Award, First Annual Tandem PBMT/ASPHO Conference "New Frontiers in Allogeneic Stem Cell Transplant"
2014	Children's Cancer Foundation/Giant Food Next Gen Award for Children's Cancer Research
2017	JHH-NCI Pediatric Hematology Oncology Fellowship Faculty Teaching Award

2017	NIH Director's Award: Pediatric Hematologic Malignancies Translational Team
2018	Clinical Research Forum, Top 10 Clinical Research Achievement Award: "New CAR Therapy for Relapsed Leukemia."
2019	Children's Cancer Foundation/Grant Recipient
2019	Lasker Clinical Research Scholar
2019	NIH Distinguished Scholar
2019	SITC Women's Immunotherapy Network Leadership Institute
2020	Federal Tech Transfer Award, Center for Cancer Research, National Cancer Institute
2020	NCI Director's Award: Team Science-Clinical: "Development of CD22 CAR T-cell Therapy for Pediatric ALL"
2020	Length of Service Award: 10 years, National Institutes of Health
2021	NIH Directors Award: CCR Woman Scientific Advisory Board
2021	AACR Team Science Award (For Stand Up 2 Cancer Dream Team)
2022	CCR Group Special Act Award: Myeloid Malignancies Program Steering Committee
2022	CCR Special Act Award: CD22 CAR Project
2023	CCR Special Act Award: Leukemia, Lymphoma, Transplantation and Cellular Therapy Team
2023	CCR Special Act Award: Office of the Clinical Director, Advisory Committee Chair
2024	Nesbitt Award for the best clinical-translational abstract at the Histiocyte Society 40 th Annual Meeting. Presentation, "A novel CD3neg hyperactivated T-cell population distinguishes IEC-HS from HLH." (Senior author)
2024	NIH Clinical Center CEO Award: Adoptive Cell Therapy Toxicity Team
2024	NIH Director's Challenge Innovation Award (see funding)
2024	Executive Leadership in Academic Medicine (ELAM) Fellow
2024	Federal Tech Transfer Award, Center for Cancer Research, National Cancer Institute
2024	American Society of Pediatric Hematology/Oncology Frank A. Oski Memorial Lectureship
2025	NCI Director's Award for Translational Science-Scientific
2025	Presidential Early Career Award for Scientists and Engineers (PECASE)
2026	Outstanding New Investigator Award, American Society of Gene & Cell Therapy

Clinical Activities

Clinical Expertise

Board certified pediatric hematologist/oncologist and internal medicine physician
Clinical focus on the treatment of children, adolescent and young adults with hematologic malignancies, primarily acute lymphoblastic leukemia and acute myeloid leukemia
Expertise with chimeric antigen receptor (CAR)-T clinical trials and toxicity management
Expertise with hematopoietic stem cell transplantation (HSCT)
Early-phase protocol development (Phase I/II) and translational immuno-oncology
Clinical strategy & trial implementation
Regulatory affairs
Team leadership & mentorship
Medical ethics
Procedural expertise with bone marrow aspirate/biopsy, lumbar puncture with infusion of intrathecal therapy and bone marrow harvests for procurement of stem cells

Scope of Clinical Practice

2015-present Attending Physician, NIH Clinical Center, Inpatient and Outpatient Pediatric, Adolescent, and Young Adult Oncology—Pediatric Oncology, Adult Cell and Transplant Therapy services
 Outpatients: 15 patients per year
 Inpatients: 3-8 patients on service (4-6 weeks/year)
 30% FTE (approximate)

Additional roles encompassed in the above: Adjunct Investigator, Immune Deficiency Cellular Therapy Program (2023-present)

Development of Clinical Programs

2019-Present Head, Hematologic Malignancies Section, Pediatric Oncology Branch
 Developed a clinical/translational program focused in early phase immunotherapy trials treating patients with relapsed/refractory acute leukemia in children, adolescents and young adults. Achieved breakthrough therapy designation from the FDA for development of CD22 CAR T-cells

2015-2019 Lead Clinical Investigator, Hematologic Malignancies Section, Pediatric Oncology Branch
 Led clinical trials for children, adolescents, and young adults with relapsed/refractory hematologic malignancies.

Professional Society Memberships

2011-Present Member, American Society of Transplantation and Cell Therapy (ASTCT)
 2012-Present Member, American Society of Hematology (ASH)
 2013-Present Member, Children's Oncology Group (COG)
 Member, Pediatric Transplantation and Cell Therapy Consortium (PTCTC)
 Member, Therapeutic Advances in Childhood Leukemia & Lymphoma (TACL)
 2018-Present Member, Society of Immunotherapy of Cancer (SITC)
 2021-Present Member, American Society of Pediatric Hematology/Oncology (ASPHO)
 Member, American Association for Cancer Research (AACR)
 2022-Present Member, American Society of Gene + Cell Therapy (ASGCT)
 2023-Present International Society for Cell & Gene Therapy (ISCT)
 2025-Present Member (Elected), American Society of Clinical Investigation (ASCI)

Administrative Service

Institutional Service

Center for Cancer Research, National Cancer Institute

2013-Present Reviewer, Pediatric Oncology Branch Scientific Protocol Review Committee
 2015-2018 Lead, Pediatric Oncology Branch QA Committee
 Outcome: Established standard for continuous tacrolimus infusion and optimized bone marrow harvest collection media

2015-2017 Reviewer, Scientific Review Committee, CCR
 2016-2021 Associate Fellowship Program Director, Pediatric Oncology Branch, NCI/Johns Hopkins
 Joint Fellowship Program in Pediatric Hematology/Oncology

2016-Present Interviewer, Pediatric and Adult Hematology and Oncology Fellowship Programs
 2018-2019 Staff Clinician Representative, NCI Woman's Scientific Advisory Board
 2016-2019 Scientific Member, National Cancer Institute (NCI), Institutional Review Board

2019-2025	Member, NCI, Office of Sponsor and Regulatory Oversight, Advisory Committee
2022-2025	Chair, Office of the Clinical Director Advisory Committee
2023-Present	Chair, Center for Cancer Research Scientific Review Committee
2024-2026	Co-Chair, Myeloid Malignancies Program Steering Committee
2026-Present	Co-Chair, Training and Workforce Development Working Group

National Institutes of Health Clinical Center

2013-Present	Member, NIH Transplantation and Cellular Therapy Consortium
2019-Present	Member, Center for Cellular Engineering, Advisory Committee

National Institutes of Health Intramural Research Program

2013-2016	Scientific Member, National Heart, Lung and Blood Institute (NHLBI), Institutional Review Board;
2016-Present	Reviewer, NHLBI, Scientific Review Committee
2021-Present	Advisor, NIH Medical Research Scholars Program Board
2026-Present	Elected Member, Assembly of Scientists

National Service

Journal reviews/editorial boards

2015-Present	Ad Hoc Reviewer, Biology of Blood and Marrow Transplantation/Transplantation Cellular Therapy (3x/yr)
2015-Present	Ad Hoc Reviewer, Blood (4x/yr)
2015-Present	Ad Hoc Reviewer, Blood Cancer Discovery (1x/yr)
2015-Present	Ad Hoc Reviewer, Blood Advances (3x/yr)
2015-Present	Ad Hoc Reviewer, Cancer Discovery (1x/yr)
2015-Present	Ad Hoc Reviewer, Cytotherapy (1x/yr)
2015-Present	Ad Hoc Reviewer, Journal of Immunotherapy of Cancer (1x/yr)
2015-Present	Ad Hoc Reviewer, Leukemia (1x/yr)
2015-Present	Ad Hoc Reviewer, Molecular Therapy (1x/yr)
2015-Present	Ad Hoc Reviewer, Nature Medicine (1x/yr)
2015-Present	Ad Hoc Reviewer, New England Journal of Medicine (1x/yr)
2015-Present	Ad Hoc Reviewer, Pediatric Blood and Cancer (1x/yr)
2018-2019	Editorial Board Member, Advances in Cell and Gene Therapy
2020-2025	Associate Editor (Immune Cell Therapies and Immune Cell Engineering Section), Journal for ImmunoTherapy of Cancer
2020-2025	Associate Editor (Cancer Immunity and Immunotherapy Section), Frontiers in Immunology
2022-2025	Associate Editor, Blood Cancer Discovery
2025-Present	Editor-in-Chief, Pediatric, Adolescent, Young Adult Cancer (American Cancer Society journal)

Professional Society Roles

2012-Present	Member, Therapeutic Advances in Childhood Leukemia & Lymphoma (TACL)
2012-2025	Protocol Chair, T2012-002 (A Pilot Study of Vincristine Sulfate Liposome Injection [Marqibo®] in Combination with UK ALL R3 Induction Chemotherapy for Children, Adolescents and Young Adults with Relapse of Acute Lymphoblastic Leukemia), TACL
2014-Present	Member, Oncology Strategy Committee, Pediatric Transplantation and Cellular Therapy Consortium (PTCTC)
2015-2016	Member, Committee on Practice Guidelines, American Society for Transplantation and Cellular Therapy (ASTCT)

2015-2018	Chair, Donor Health and Safety Working Committee, Center for International Blood and Marrow Transplant Research (CIBMTR)
2015-Present	Executive Committee Member, Cellular Immunotherapy Data Resource (CIDR), CIBMTR
2016-Present	Study Committee Member, AALL1621 (A Phase 2 Study of Inotuzumab Ozogamicin in Children and Young Adults with Relapsed or Refractory CD22+ B-Acute Lymphoblastic Leukemia [B-ALL]), COG
2019-2022	Member, Steering Prioritization Committee, TACL
2020-Present	Committee Member, Subcommittee on Emerging Gene and Cell Therapies, American Society of Hematology (ASH)
2021-Present	Member, Scientific Review Committee, PTCTC
2022-2026	Chair, Cellular Therapeutics Strategy Group, PTCTC
2023-2026	Member at Large (Federal Liaison), Executive Committee, PTCTC
2023-2026	Director at Large, Board of Directors, ASTCT (February 2023-February 2026)
2023-Present	Member, Committee on Cellular Therapy, ASTCT
2023-Present	Member, ISCT Immuno-Gene Therapy Scientific Committee
2024-Present	Co-Chair, Immune Effector Cell Committee, TACL
2024-Present	Chair, CAR T-cell Toxicity Consortium, ASH
2024-Present	Member, Cell Therapy Strategy Group, COG
2025-Present	Education Co-Chair, ASH Annual Meeting 2027
2026-2029	Executive Board, Vice Chair, PTCTC
2026-Present	Pediatric Day Chair, PTCTC (2027)

Other Roles

2021-Present	Member, Cellular, Tissue, and Gene Therapies Advisory Committee (CTGTAC), Food and Drug Administration (FDA)
2024-Present	Member, AML CAR T-cell Consortium (IMPACT)

International Service

2016-Present	Clinical Consultant, TATA Memorial Hospital and Indian Institute of Technology, Mumbai, India
2023-Present	Scientific Advisor, ImmunoACT, Mumbai, India
2023-Present	Member, Immuno-Gene Therapy Scientific Committee, International Society for Cell & Gene Therapy (ISCT)
2025-Present	Chair, Data Safety Monitoring Committee (CD22 CAR Trial, CLIC-2201), British Columbia Cancer Agency, Canada

Teaching Service

Undergraduate Student Teaching [or Mentoring, or Advising]

2017-2025	Mentor, Summer students, Clinical research Pediatric Oncology Branch, Center for Cancer Research, NCI Intramural 16 students—1-2 hours/week over 8-10 weeks each summer
2020-2025	Mentor, Post-baccalaureate students, Clinical Research Pediatric Oncology Branch, Center for Cancer Research, NCI Intramural 2 students—2 hours/week over 2-3 years

Medical Student Teaching/Mentoring

2019-present	Research Mentor, Medical Research Scholars Program (for medical students) Pediatric Oncology Branch, Center for Cancer Research, NCI Intramural
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7 trainees—1-2 hours/week over a 1-year period
 2013-present Lecturer, Pediatric Oncology Topics (cell therapy, stem cell transplant, acute leukemia)
 20 fellows—1-2 hours over a 1-year period

Resident and Fellow Teaching

2018-present Advisor, Fellowship Scholarship Oversight committee
 6 Pediatric or Adult Hematology/Oncology fellows – 0.5 hours/month over 2-3 years
 2019-present Research Mentor, Hematology/Oncology fellows (adult and pediatric), Clinical research, including Immunotherapy Fellowship
 Pediatric Oncology Branch, Center for Cancer Research, NCI Intramural
 16 trainees—1-2 hours/week over 2-5 years
 2013-present Lecturer, Pediatric Oncology Topics (cell therapy, stem cell transplant, acute leukemia)
 20 fellows—1-2 hours over a 1-year period

Research Activities

Led CAR T-cell and antibody therapy trials targeting CD19, CD22, and CD33 in acute leukemias
 Led and supported stem cell transplant protocols in malignant hematology and primary immunodeficiency
 Guided >200 CAR T-cell infusions in leukemia and solid tumors
 Secured Breakthrough Therapy Designation for CD22 CAR T-cells
 Identified novel CAR T-cell treatment-related inflammatory toxicities
 Developed therapeutic approaches shaping the relapsed/refractory leukemia treatment landscape
 Supported development for CAR T-cells in India

Clinical Trials:

Principal Investigator Roles: Prospective Clinical Trials

2011-2018 A Phase I Study of NK Cell Infusion Following Allogeneic Peripheral Blood Stem Cell Transplantation From Related or Matched Unrelated Donors in Pediatric Patients With Hematologic Malignancies (NCT01287104)
 2014-2024 Phase I Dose Escalation Study of Anti-CD22 Chimeric Receptor T Cells in Pediatric and Young Adults With Recurrent or Refractory CD22-Expressing B Cell Malignancies (NCT02315612)
 2014-Present Follow-Up Evaluation for Gene-Therapy Related Delayed Adverse Events After Participation in Pediatric Oncology Branch Clinical Trials (NCT02315599)
 2015-2020 A Phase II Study of the Anti-CD22 Recombinant Immunotoxin Moxetumomab Pasudotox (CAT-8015, HA22) in Children With B-lineage Acute Lymphoblastic Leukemia and Minimal Residual Disease Prior to Allogeneic Hematopoietic Stem Cell Transplantation NCT02338050
 2017-2024 A Pilot Study of Vincristine Sulfate Liposome Injection (Marqibo®) in Combination With UK ALL R3 Induction Chemotherapy for Children, Adolescents and Young Adults With Relapse of Acute Lymphoblastic Leukemia (NCT02879643)
 2017-Present Leukapheresis for CAR or Adoptive Cell Therapy Manufacturing (NCT03226704)
 2017-Present Children's Oncology Group Phase II Study of Inotuzumab Ozogamicin in Children and Young Adults With Relapsed or Refractory CD22+ B-Acute Lymphoblastic Leukemia (AALL1621) (NCT02981628)
 2015-2020 Related and Unrelated Donor Hematopoietic Stem Cell Transplant for DOCK8 Deficiency (NCT01176006)

2018-2024	Phase I Dose-Escalation Study of Anti-CD19/CD22 Bispecific Chimeric Antigen Receptor T Cells in Children and Young Adults With Relapsed/Refractory Leukemia (NCT03448393)
2020-2025	Phase 1/2 Study of Anti-CD33 Chimeric Antigen Receptor-Expressing T Cells (CD33CART) in Children and Young Adults With Relapsed/Refractory Acute Myeloid Leukemia (NCT03971799)
2021-2025	A First-In-Human, Open-Label, Multicenter Study of VOR33 in Patients With Acute Myeloid Leukemia Who Are at High-Risk for Leukemia Relapse Following Hematopoietic Cell Transplantation (NCT04849910)
2022-Present	Phase 1/2 Dose Escalation Study of CD19/CD22 Bicistronic Chimeric Antigen Receptor (CAR) T Cells in Children and Young Adults With Recurrent or Refractory CD19/CD22-Expressing B Cell Malignancies (NCT05442515)
2022-Present	A Long-Term Follow-Up Study of Patients Who Received VOR33 (NCT05309733)
2023-2025	Pilot Prospective Study for PET-CT Imaging in Participants With Relapsed/Refractory Acute Leukemias (NCT05969002)
2023-2025	Phase 1/2 Study of Donor-Derived Anti-CD33 Chimeric Antigen Receptor Expressing T Cells (VCAR33) in Patients With Relapsed or Refractory Acute Myeloid Leukemia After Allogeneic Hematopoietic Cell Transplantation (NCT05984199)
2023-2025	An Open-Label, Multicenter Phase 2 Study Evaluating the Efficacy and Safety of CRG-022, a CD22-Directed Autologous Chimeric Antigen Receptor (CAR) T-Cell Therapy in Patients With Relapsed/Refractory Large B-Cell Lymphoma (FIRCE-1) (NCT05972720)
2025-Present	A Multicenter Study to Evaluate Next-Generation Sequencing (NGS) Testing and Monitoring of B-Cell Recovery to Guide Management Following Chimeric Antigen Receptor T-cell (CART) Induced Remission in Children and Young Adults with B Lineage Acute Lymphoblastic Leukemia (NCT05621291)
2026	Phase I Dose Escalation Study of Anti-CRLF2-R/TSLPR Chimeric Antigen Receptor T Cells (TSLPR-CART) in Participants With Recurrent or Refractory CRLF2-R/TSLPR-Overexpressing B-cell Acute Lymphoblastic Leukemia (B-ALL) (NCT07572136)

Principal Investigator Roles: Retrospective Studies

2018-2021	Retrospective Study of Optimal Methods of Disease Detection in Children and Young Adults With Acute Lymphoblastic Leukemia in the Pediatric Oncology Branch (NCT03627208)
2019-2026	Retrospective Study of Immunotherapy Related Toxicities and Factors Impacting Outcomes in Children and Adults With Cancer (NCT03827343)
2021-2024	CAR-Multicenter Analysis (CAR-MA): Retrospective Study to Characterize CAR T-cell Outcomes and Related Toxicities in Children and Young Adults With B-ALL (NCT05440409)

Associate Investigator Roles

2010-Present	Related and Unrelated Donor Hematopoietic Stem Cell Transplant for DOCK8 Deficiency (NCT01176006) (PI Role from years 2015-2020)
2012-2017	Phase I Study of T Cells Expressing an Anti-CD19 Chimeric Receptor in Children and Young Adults With B Cell Malignancies (NCT01593696)
2018-2022	A Phase II Pilot Trial to Estimate Survival After a Non-Total Body Irradiation (TBI) Based Conditioning Regimen in Patients Diagnosed With B-Acute Lymphoblastic Leukemia (ALL) Who Are Pre-Allogeneic Hematopoietic Cell Transplantation Next-Generation Sequencing Minimal Residual Disease Negative (NCT03509961)
2022-Present	A Phase I Trial of Autologous GD2-Specific Chimeric Antigen Receptor (CAR) Modified T Lymphocytes for Children and Young Adults With Relapsed/Refractory Osteosarcoma and Neuroblastoma (GD2-CAR PERSIST) (NCT04539366)

2022-Present	Phase I Study of Anti-CD22 CAR T-cells in Patients With Relapsed/Refractory Hairy Cell Leukemia and Variant (NCT04815356)
2024-Present	Investigation of the Cognitive Aftereffects of Neurotoxicity in Children and Young Adults With Relapsed/Refractory Hematologic Malignancies Who Received CAR T-cell Therapy (NCT05237986)
2026-Present	A Phase II Study to Examine the Impact of CD22 CAR T-cells to Extend the Duration of Remission Following Commercial CD19 CAR T-cells in Children, Adolescents, and Adults with Relapsed/Refractory B-cell Acute Lymphoblastic Leukemia (NCT07328503)

Grant Support

Active Grants or Contracts

4/28/2019-7/31/2026	Grant #: 1 SI2 CA239912 Lasker Clinical Research Scholars Program (Si2/R00) PI, 50%* <i>“Development of Novel Approaches to Optimize CAR T-cell Therapies for B-cell Malignancies”</i> National Cancer Institute Annual Direct Costs: \$1,023,609 Total Direct Costs: \$1,023,609 PI, 25%* <i>“Development of Novel Immunotherapeutic Strategies for Myeloid Malignancies”</i> National Cancer Institute Annual Direct Costs: \$767,708 Total Direct Costs: \$767,708 PI, 25%* <i>“Comprehensive Interrogation of Toxicity Profiles Associated with Novel CAR T-cell Constructs”</i> National Cancer Institute Annual Direct Costs: \$767,708 Total Direct Costs: \$767,708
7/1/2024-6/30/2027	Grant #: HT9425-24-1-0620 Co-PI, funds will all go to St. Jude to support the trial conduct <i>“CONQUER: CAR T-cell long-term follow-up, quality of life and adverse reactions.”</i> Department of Defense Congressionally Directed Medical Research Program, Peer Reviewed Cancer Research Program (PRCRP) Patient Well-Being and Survivorship Award Annual Direct Costs: \$1,284,546 Total Direct Costs: \$1,284,546
9/1/2026-8/31/2029	Grant #: CA250473 Co-Investigator Department of Defense, Peer Reviewed Cancer Research Program (PRCRP) Impact Award – Clinical Trial. “Chemotherapy Induction

Regimen for Lineage Switch AML (LS-AML) or MPAL (LS-MPAL)
 Post ALL-Directed Immunotherapy
 Total Costs: \$1,623,850

Completed Grants or Contracts*

2014-2015	PI <i>“A Phase I Study of Haploidentical Activated Natural Killer Cells for Children, Adolescents and Young Adults with Relapsed/Refractory Leukemia.”</i> Next Gen Award for Children’s Cancer Research Children’s Cancer Foundation/Giant Food Annual Direct Costs: \$100,000 Total Direct Costs: \$100,000
2019-2022	PI <i>“A Phase I/II Clinical Trial Testing a Novel Combinatorial CD19/CD22 CART + Checkpoint Inhibitor to Prevent Antigen Loss and Improve Durable Responses in Acute Lymphoblastic Leukemia”</i> Children’s Cancer Foundation/Grant Recipient: Annual Direct Costs: \$75,000 Total Direct Costs: \$75,000
2020-2022	Co-PI (Co-PIs: Grégoire Altan-Bonnet, Naomi Taylor), <i>“High-dimensional dynamic profiling of CAR T-cells to optimizing immunotherapies for B-cell leukemia/lymphoma.”</i> FLEX: CCR Synergy Award Annual Direct Costs: \$150,000 Total Direct Costs: \$300,000
2021-2025	Co-PI (Funds went to the National Marrow Donor Program) <i>“A Phase I/II Study of CD33 CAR T-cells in children, adolescents and young adults with relapsed/refractory AML.”</i> Gateway Foundation Total Direct Costs: \$800,000. <i>I was the co-PI for the clinical trial. The funds went directly to the National Marrow Donor Program (IND Sponsor) to support conduct of the study</i>
1/31/2022-6/30/2024	3 U01 CA232563-01S3 Co-PI (Co-PIs: Andrei Thomas-Tikhonenko) <i>“Alternative splicing of CD22 following Inotuzumab”</i> NIH Bench to Bedside and Back/Cancer Moonshot Supplemental Total Direct Costs: \$420,362
2022-2025	Co-PI (Co-PIs: Jack Shern, Naomi Taylor), <i>“Identification of mechanisms resulting in CD22 modulation following CD22-CART therapy”</i> FLEX: CCR Basic-Translational-Clinical Axis Total Direct Costs: \$300,000
2023-2025	Co-I (PIs: Naomi Taylor, Crystal Mackall) <i>“CAR design and manufacturing for childhood ALL”</i> NIH Bench to Bedside and Back/Cancer Moonshot

	Total Direct Costs: \$150,000 <i>I was a leading investigator on the study supporting the clinical development</i>
2023-Present	Co-PI (Co-PIs: Muna Qayed, Marie Bleakley; all funds will support clinical trial implementation) <i>CAR-CURE Study</i> Peach Bowl Grant, Children's Hospital of Atlanta Total Direct Costs: \$750,000
2024-Present	Co-PI (Co-PIs: David Stroncek, Irini Sereti, Eytan Ruppin) "Predicting CAR T-cell toxicity and response: A bioinformatics-based approach" NIH Director's Challenge Innovation Award Annual Direct Costs: \$125,000 Total Direct Costs: \$250,000
2022-2024	PI <i>"A Pilot Study Incorporating Prospective PET-CT Imaging with Peripheral Blood Next-Generation Sequencing and Cell-Free DNA to Identify and Optimize Outcomes of CAR T-cell Therapy in Extramedullary B-Cell Acute Lymphoblastic Leukemia (B-ALL)"</i> <i>Children's Cancer Foundation/Grant Recipient:</i> Annual Direct Costs: \$75,000 Total Direct Costs: \$75,000

Patents, Inventions and Copyrights

None

Please note that I have received royalties from the NIH for the development of CD22 CAR T-cells for providing materials and scope of use. (Not an inventor)

Peer-reviewed Journal Articles

Complete list of publications: <https://www.ncbi.nlm.nih.gov/myncbi/nirali.shah.1/bibliography/public/>

Peer-Reviewed Journal Articles

1. Rodriguez-Galindo C, Wilson MW, Haik BG, Merchant TE, Billups CA, **Shah N**, Cain A, Langston J, Lipson M, Kun LE, Pratt CB. Treatment of intraocular retinoblastoma with vincristine and carboplatin. *J Clin Oncol.* 2003;21:2019-25.
2. Rodriguez-Galindo C, **Shah N**, McCarville MB, Billups CA, Neel MN, Rao BN, Daw NC. Outcome after local recurrence of osteosarcoma: the St. Jude Children's Research Hospital experience (1970-2000). *Cancer.* 2004;100:1928-35.
3. Corey KE, **Shah N**, Misdraji J, Abu Dayyeh BK, Zheng H, Bhan AK, Chung RT. The effect of angiotensin-blocking agents on liver fibrosis in patients with hepatitis C. *Liver Int.* 2009;29:748-53.
4. **Shah NN**, Bacher U, Fry T, Calvo KR, Stetler-Stevenson M, Arthur DC, Kurlander R, Baird K, Wise B, Giralto S, Bishop M, Hardy NM, Wayne AS. Myelodysplastic syndrome after allogeneic hematopoietic stem cell transplantation: diagnostic and therapeutic challenges. *Am J Hematol.* 2012;87:916-22.
5. Haso W, Lee DW, **Shah NN**, Stetler-Stevenson M, Yuan CM, Pastan IH, Dimitrov DS, Morgan RA, Fitzgerald DJ, Barrett DM, Wayne AS, Mackall CL, Orentas RJ. Anti-CD22-chimeric antigen receptors targeting B-cell precursor acute lymphoblastic leukemia. *Blood.* 2013;121:1165-74.

6. Bitan M, He W, Zhang MJ, Abdel-Azim H, Ayas MF, Bielorai B, Carpenter PA, Cairo MS, Diaz MA, Horan JT, Jodele S, Kitko CL, Schultz KR, Kletzel M, Kasow KA, Lehmann LE, Mehta PA, **Shah N**, Pulsipher MA, Prestidge T, Seber A, Shenoy S, Woolfrey AE, Yu LC, Davies SM. Transplantation for children with acute myeloid leukemia: a comparison of outcomes with reduced intensity and myeloablative regimens. *Blood*. 2014;123:1615-20.
7. Li X, Brazauskas R, Wang Z, Al-Seraihy A, Baker KS, Cahn JY, Frangoul HA, Gajewski JL, Hale GA, Hsu JW, Kamble RT, Lazarus HM, Marks DI, Maziarz RT, Savani BN, Shah AJ, **Shah N**, Sorror ML, Wood WA, Majhail NS. Avascular necrosis of bone after allogeneic hematopoietic cell transplantation in children and adolescents. *Biol Blood Marrow Transplant*. 2014;20:587-92.
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 195. Womba H, Ardoin SP, Bonifant CL, Cooper JC, Kim H, Sadun RE, Lewndowski L, Keller M, Colbert RA, Edens C, DeQuattro K, Driest K, Shalen J, Stojkic I, Knight A, Annesley C, Torok KS, Elgarten CW, Onishi T, Jackson SW, Prockop S, **Shah NN**, Ardlan K, Lamb M. CAR T cell therapy for children with rheumatic disease: the time is now. *Nat Rev Rheumatol*. 2025;21(8):494-506.
 196. Lambie A, Bohling SD, Davis KL, Talleur AC, McNerney KO, Naik S, Kumar P, Thomas R, Wang HW, Yuan CM, Jacoby E, Baruchel A, Ghorashian S, Pulsipher MA, Schultz L, Gardner RA, **Shah NN**. Harmonization on defining B-cell recovery post CD19-CAR T-cell therapy in B-cell acute lymphoblastic leukemia: An international consensus statement. *Hemasphere*. 2025;9(11).
 197. Schultz L, McNerney K, Lambie AJ, Calkoen FG, Baruchel A, Ceppi F, Curran KJ, Gore L, Lamb M, Maude SL, Pulsipher MA, Qayed M, Ramakrishna S, Rheingold SR, Rossig C, Silbert SK, Steineck A, Summers C, Capitini CM, Bhojwani D, Gardner RA, Ghorashian S, **Shah NN**. The quintessential role for CAR T cell therapy in children, adolescents and young adults with cancer. *Nat Rev Clin Oncol*. 2026;23(4):260-278.
 198. Johnson WT, McNerney KO, Frank MJ, **Shah NN**. How I treat HLH-like toxicities after immune effector cell therapy. *Blood*. 2026;147(22):2592-2609.
 199. Kovach AE, Ding YY, Lambie AJ, Bernt K, Bomken S, Brodersen LE, Buldini B, Delgado Colon D, Coorens THH, Green Gladden R, Mejstrikova E, Raikar SS, Rheingold SR, Silbert SK, Tan K, Yuan CM, Wang HW, Ghorashian S, **Shah NN**, Davis KL. Plasticity under pressure: biology and detection of lineage switch in acute leukemia. *Leukemia*. 2026. Online ahead of print.
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Peer-Reviewed Case Reports/Series

201. Yachimski P, **Shah N**, Chung RT. Porphyria cutanea tarda. *Clin Gastroenterol Hepatol*. 2007;5:e6.
202. **Shah NN**, Price MR, Loeb DM. Cardiac metastasis and hypertrophic osteoarthropathy in recurrent infantile fibrosarcoma. *Pediatr Blood Cancer*. 2012;59:179-81.
203. Dimitriades VR, Devlin V, Pittaluga S, Su HC, Holland SM, Wilson W, Dunleavy K, **Shah NN**, Freeman AF. DOCK 8 Deficiency, EBV+ Lymphomatoid Granulomatosis, and Intrafamilial Variation in Presentation. *Front Pediatr*. 2017;5:38.
204. Ligon JA, Natarajan M, Shalabi H, Yates B, Bishop R, Bianchi D, Alencar A, Lionakis MS, **Shah NN**. Invasive fusariosis masquerading as extramedullary disease in rapidly progressive acute lymphoblastic leukemia. *Pediatr Blood Cancer*. 2019;66:e27732.
205. Freeman AF, Yazigi N, **Shah NN**, Kleiner DE, Parta M, Atkinson P, Heller T, Holland SM, Kaufman SS, Khan KM, Hickstein DD. Tandem Orthotopic Living Donor Liver Transplantation Followed by

- Same Donor Haploidentical Hematopoietic Stem Cell Transplantation for DOCK8 Deficiency. Transplantation. 2019;103(10):2144-2149.
206. **Shah NN**, Qin H, Yates B, Su L, Shalabi H, Raffeld M, Ahlman MA, Stetler-Stevenson M, Yuan C, Guo S, Liu S, Hughes SH, Fry TJ, Wu X. Clonal expansion of CAR T cells harboring lentivector integration in the CBL gene following anti-CD22 CAR T-cell therapy. *Blood Adv*. 2019;3:2317-2322.
 207. Shalabi H, Koegel A, Ponduri A, Qin H, Salem D, Stetler-Stevenson M, Yuan C, Yates B, Delbrook C, Loh ML, Fry TJ, **Shah NN**. Case Report: Impact of BITE on CAR T-Cell Expansion. *Advances in Cell and Gene Therapy*. 2019;2.
 208. Good M., Malekzadeh P, Kriley IR, **Shah NN**, Kleiner DE, Calvo K, Hernandez JM, Davis JL. Intrahepatic cholangiocarcinoma as a rare secondary malignancy after allogeneic hematopoietic stem cell transplantation for childhood acute lymphoblastic leukemia: a case report. *Pediatr Transplant*. 2020;24(2):e13653.
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 210. Molina J, Asare JM, Tuschong L, West RR, Calvo KR, Persky R, Boyce AM, Hammoud DA, Holland SM, Hickstein D, **Shah NN**. Venetoclax/decitabine for a pediatric patient with chronic myelomonocytic leukemia. *Pediatr Blood Cancer*. 2021;68(3):e28865.
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 212. Masih KE, Ligon JA, Yates B, Shalabi H, Little L, Islam Z, Ombrello AK, Inglefield J, Nussenblatt V, Manion M, Khan J, **Shah NN**. Consequences of hemophagocytic lymphohistiocytosis-like cytokine release syndrome toxicities and concurrent bacteremia. *Pediatr Blood Cancer*. 2021;68(10):e29247.
 213. Holland EM, Gonzalez C, Levy E, Valera VA, Chalfin H, Klick-Skeels J, Yates B, Kleiner DE, Hadigan C, Dave H, Shalabi H, Hickstein DD, Su HC, Grimley M, Freeman AF, **Shah NN**. Fatal complications of BK virus-hemorrhagic cystitis and severe cytokine release syndrome following BK virus-specific T-cells. *Front Immunol*. 2021;12:801281.
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 215. Scala JJ, Eckrich MJ, Lipak K, Yates B, Yuan C, Wang H-W, Dahiya S, Henter J-I, Huo JS, Frank MJ, **Shah NN**. Treatment strategies for progressive immune effector cell-associated hemophagocytic lymphohistiocytosis-like syndrome: Case series. *Haematologica*. 2024;109(10):3439-3445.
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 217. Rankin AW, Silbert SK, Duncan BB, Yates B, Nath A, Biassou N, Suffredini AF, Danner RL, Natanson C, Aluwalia AK, Little L, Foley T, Murthy HS, Shalabi H, Nyquist P, **Shah NN**. Quadriparesis after CD19 x CD22 bicistronic chimeric antigen receptor T-cells for B-cell acute lymphoblastic leukemia. *Br J Haematol*. 2025;207(4):1673-1678.
 218. Koehne G, Mushtaq MU, Muffly LS, Menes M, Azzi J, Bernard L, Cooper B, Kennedy V, Koura D, Maakaron J, Magenau J, McClune B, Patel SS, Rimando JC, **Shah NN**, Suh HC, Tamari R, Thosar S, Carnsin G, Hyzy SL, Lee-Sundlov MM, Stanizzi DA, Hummel D, Lin MI, Raffel GD, Whangbo JS, DiPersio JF. Remission of TP53-mutant AML after transplantation with Trem-Cel, a CRISPR/Cas9 gene-edited allograft lacking CD33, followed by a donor-derived anti-CD33 chimeric antigen receptor T (VCAR33). *JCO Precis Oncol*. 2025;9:e25000556.

Peer-Reviewed National Collaborations (Consortia Papers)

219. Heslop HE, Stadtmauer EA, Levine JE, Ballen KK, Chen Y, DeZern AE, Eapen M, Hamadani M, Hamilton BK, Hari P, Jones RJ, Logan BR, Kean LS, Leifer ES, Locke FL, Maziarz RT, Nemecek ER, Pasquini M, Phelan R, Riches ML, Shaw BE, Walters MC, Foley A, Devine SM, Horowitz MM. Blood and Marrow Transplant Clinical Trials Network State of the Science Symposium 2021: Looking Forward as the Network Celebrates its 20th Year. *Transplant Cell Ther.* 2021;(11):885-907.
220. Schultz L, Jacoby E, Lambie AJ, Maude SL, McNerney KO, Moskop A, Myers RM, Pulsipher MA, **Shah NN**. Introduction to the Reports from the Insights in Pediatric CAR T-cell Immunotherapy: Recent Advances and Future Directions (INSPIRED) Symposium. *Transplant Cell Ther.* 2023;29(10):592-593.
221. Myers RM, Jacoby E, Pulsipher MA, Pasquini MC, Grupp SA, **Shah NN**, Laetsch TW, Curran KJ, Schultz LM. INSPIRED Symposium Part 1: Clinical Variables Associated with Improved Outcomes for Children and Young Adults treated with Chimeric Antigen Receptor T cells for B cell Acute Lymphoblastic Leukemia. *Transplant Cell Ther.* 2023;29(10):598-607.
222. Lambie A, Moskop A, Maude SL, Summers C, Annesley C, Baruchel A, Gore L, Amrolia P, **Shah NN**. INSPIRED Symposium Part 2: Prevention and Management of Relapse Following CAR T-cell therapy for B-ALL. *Transplant Cell Ther.* 2023;29(11):674-684.
223. McNerney KO, Hsieh EM, Shalabi H, Epperly R, Wolters PL, Hill JA, Gardner R, Talleur A, **Shah NN**, Rossoff J. INSPIRED Symposium Part 3: Prevention and Management of Pediatric Chimeric Antigen Receptor T Cell-associated emergent toxicities. *Transplant Cell Ther.* 2023;30(1):38-55.
224. Winestone LE, Bhojwani D, Ghorashian S, Muffly L, Barz Leahy A, Chao K, Steineck A, Rossig C, Lambie A, Maude SL, Myers R, Rheingold SR. INSPIRED Symposium Part 4A: Access to CAR T Cell Therapy in Unique Populations with B Cell Acute Lymphoblastic Leukemia. *Transplant Cell Ther.* 2024;30(1):56-70.
225. Ligon JA, Ramakrishna S, Ceppi, Calkoen FGJ, Diorio C, Davis KL, Jacoby E, Gottschalk S, Schultz LM, Capitini CM. INSPIRED Symposium Part 4B: Chimeric Antigen Receptor T Cell Correlative Studies-Established Findings and Future Priorities. *Transplant Cell Ther.* 2024;30(2):155-170.
226. Talleur AC, Fabrizio VA, Aplenc R, Grupp SA, Mackall CL, Majzner R, Nguyen R, Rouce R, Moskop A, McNerney KO. INSPIRED Symposium Part 5: Expanding the use of CAR T-cells in Children and Young Adults. *Transplant Cell Ther.* 2024;30(6):565-579.
227. Pearson ADJ, Rossig C, Mackall CL, **Shah NN**, Baruchel A, Daems S, Anderson J, Biondi A, Bird N, Bodmer N, Brivio E, Buechner J, Calkoen FG, Cooper T, de Rojas T, Fox E, Gardner R, Ghorashian S, Heenen D, Ifversen M, Jacoby E, Juan M, Knox L, Komanduri K, Larghero J, Locatelli F, Ludwinski D, Majzner RG, McDonough J, Minard-Colin V, Nysom K, Pappo A, Park JR, Qasim W, Quintarelli C, Rives S, Rouce RH, Scobie N, Seitz C, Tasian SK, Weigel B, Weiner S, Zwaan CM, Vassal G. New models for the development of and access to CAR T-cell therapies for children and adolescents with cancer: an ACCELERATE multistakeholder analysis. *Lancet Oncol.* 2025;26(4):e214-e224.

Journal Series Editor

1. Shah NN, Pai SY, guest editors. Gene-Based Therapies for Pediatric Blood Diseases. *Hematol Oncol Clin North Am.* 2022;36(4)

Books

Book Editor

1. Lee DW, **Shah NN**, editors. Chimeric Antigen Receptor T-Cell Therapies for Cancer: A Practical Guide. 1st ed. Elsevier; 2020.

Book Chapter Contributions

1. **Shah NN**, Wayne AS. Leukemias and Lymphomas. In: Wiener LS, Pao M, editors. Quick Reference for Pediatric Oncology Clinicians: The Psychiatric and Psychological Dimensions of Pediatric Cancer

Symptom Management. American Psychosocial Oncology Society. 2nd ed. Charlottesville (VA): IPOS Press; 2009.

2. **Shah N**. Hematology. In: Prasad P, editor. Pocket Pediatrics. Philadelphia: Lippincott Williams & Wilkins; 2010.
3. **Shah NN**, Wayne AS. Acute Lymphoblastic Leukemia. In: Rodgers GP, Young NS, editors. Bethesda Handbook of Clinical Hematology. 3rd ed. Philadelphia: Lippincott Williams & Wilkins; 2012.
4. **Shah NN**, Wayne AS, Wilson WH. Burkitt's and Lymphoblastic Lymphomas. In: Marcus R, Sweetenham JW, Williams ME, editors. Lymphoma: Pathology, Diagnosis, and Treatment. 2nd ed. Cambridge, UK: Cambridge University Press; 2013.
5. Shalabi H, Khuu H, Fry TJ, **Shah NN**. Cell-Based Therapies: A New Frontier of Personalized Medicine. In: Early Phase Trial Designs for Targeted Cancer Therapeutics. Academic Press; 2018.
6. Shalabi H, **Shah NN**. Relapse Management and Role for Consolidative Hematopoietic Stem Cell Transplantation Following CAR T-Cell Therapy. In: Lee DW, **Shah NN**, editors. Chimeric Antigen Receptor T-Cell Therapies for Cancer: A Practical Guide. 1st ed. Elsevier; 2020.
7. Molina JC, **Shah NN**. Monoclonal antibody-based treatment and other new agents for B-lineage ALL. In: Acute Lymphoblastic Leukemia: Translational Science and Clinical Management for Children and Adults from the Bench to the Bedside. Springer; 2022.
8. **Shah NN**, Goff S. Immunotherapy Agents: Cellular Therapies. In: Cancer: Principles & Practice of Oncology. 12th ed. Lippincott Williams & Wilkins/Wolters Kluwer Health; 2022.

Web-based Articles

1. ASTCT Women's History Month Spotlight: Nirali N. Shah, MD, MHSc
2. <https://www.astct.org/Nucleus/Article/astct-womens-history-month-spotlight-nirali-n-shah-md-mhsc>
3. Dr. Nirali Shah Oral History, "Behind the Mask"
<https://history.nih.gov/display/history/Shah%2C+Nirali+2023>
4. American Society of Hematology Blood Podcast: How I treat series: Emergent CAR T-cell Toxicities: https://ashpublications.org/blood/pages/blood_podcast (Episode 20, Season 5)
5. CAR T-cell Therapy in Pediatric Leukemia: Past, Present and Future:
<https://www.hematologyadvisor.com/home/topics/leukemia/cart-therapy-pediatric-leukemia-past-present-future-treatment-risk/> (December 9, 2022)
6. In remission for 10 years: Long-term toxicity data on CAR T-cells.
<https://www.medscape.com/viewarticle/934286> (July 21, 2020)
7. 'Very much a calling': one clinician's journey from solving word problems to curing cancer.
<https://www.healio.com/news/hematology-oncology/20230817/very-much-a-calling-one-clinicians-journey-from-solving-word-problems-to-curing-cancer> (August 17, 2023)
8. Indian's first homegrown CAR T-cell therapy has roots in NCI Collaboration. (February 7, 2024)
<https://www.cancer.gov/news-events/cancer-currents-blog/2024/nexcar19-car-t-cell-therapy-india-nci-collaboration>
9. Cutting-edge CAR-T cancer therapy is now made in India –at one-tenth the cost.
<https://www.nature.com/articles/d41586-024-00809-y> (March 21, 2024)
10. Crafted in Indian labs, NexCAR19 takes India to the next level in cancer care. (April 11, 2024)
<https://www.thehindu.com/sci-tech/health/crafted-in-indian-labs-nexcar19-takes-india-to-next-level-in-cancer-care/article68046475.ece>

Brief Communications

Invited commentaries

1. **Shah NN**, Waldmann TA. GVL for ATL?. Blood. 2013;121(1):6-7.

2. **Shah NN**, Fry TJ. CD19 Negativity "Stems" From Hematopoietic Progenitors. *Blood*. 2017;130(18):1961-1963.
3. Ramakrishna S, **Shah NN**. Using Single-Cell Analysis to Predict CAR T Cell Outcomes. *Nat Med*. 2020;26(12):1813-1814.
4. Hawkins C, Pfister SM, Jones DTW, **Shah NN**, Gilbertson RJ, Sweet-Cordero EA, Dyer MA, Mosse YP, Haber M, DuBois SG. Advances and Challenges in Pediatric and Childhood Cancers. *Cancer Cell*. 2020;38(4):429-432.
5. **Shah NN**. The One-Two Punch (of CAR T-Cells). *Blood*. 2020;135(5):303-304.
6. Holtzman NG, **Shah NN**. CAR T-cell therapy for indolent lymphoma: a new treatment paradigm?. *Lancet Oncol*. 2021;23(1):6-8.
7. Athale J, **Shah NN**. Surviving the Storm: Critical Care Outcomes of CAR T-cell Therapy. *Lancet Haematol*. 2021;8(5):e311-e312.
8. Molina JC, **Shah NN**. CAR T Cells Better Than BiTEs. *Blood Adv*. 2021;5(2):602-606.
9. Shalabi H, **Shah NN**. CD19 CAR T-cells for Infants and Young Children. *Lancet Haematol*. 2022;9(10):e712-e714.
10. **Shah NN**, Pai SY. Current Status and Future Directions of Gene-Based Therapy for Pediatric Diseases. *Hematol Oncol Clin North Am*. 2022;36(4).
11. Benzaoui M, Taylor N, **Shah NN**. A SNIPpet of Safety: A Goldilocks Approach to Modulating CAR T-cell Efficacy and Toxicity. *Cell Res*. 2022;32(7):603-604.
12. Mirazee J, **Shah NN**. CD70 CAR T-cells in AML-Form Follows Function. *Cell Rep Med*. 2022;3(5):100639.
13. **Shah NN**, Fry TJ. The CD19neg Needle in the Haystack. *Blood*. 2022;140(1):4-6.
14. Gardner RA, **Shah NN**. CAR T-cells for Cure in Pediatric B-ALL. *J Clin Oncol*. 2023;41(9):1646-1648.
15. Gust J, **Shah NN**. CARDinal signs of variant ICANS. *Blood*. 2024;144(13):1352-1354.
16. Rankin AW, **Shah NN**. CD19 CAR T cells for multiple sclerosis: forging further into the new frontier. *Med*. 2024;5(6):482-484.
17. Ligon JA, **Shah NN**. Gene-edited CAR T-cells: going the distance in B-ALL. *Blood Adv*. 2025;9(18):4755-4756.
18. Bonifant CL, **Shah NN**. Driving CAR-Ts SafeSLE. *Blood*. 2025;146(9):1034-1035.
19. Rocco JM, **Shah NN**. Seeing Is Believing: IEC-HS after CAR T Cells. *Blood Cancer Discov*. 2026;7(2):163-165.

Major Invited Speeches

Institutional

1. **Shah NN**. 2nd International Workshop, Biology, Prevention, Treatment of Relapse After Allogeneic Hematopoietic Stem Cell Transplantation. Abstract Discussant. Bethesda, MD (NIH). November 2012.
2. **Shah NN**. POB Research Seminar: "Pediatric Allogeneic Hematopoietic Cell Donors on Clinical Research Protocols." Bethesda, MD (NIH Clinical Center). January 17, 2013.
3. **Shah NN**. Ethics Grand Rounds, National Institutes of Health. "*Children as Stem Cell Donors in Research: When is it ethical? When is it approvable?*" Bethesda, MD (NIH Clinical Center). Wednesday, February 6, 2013.
4. **Shah NN**. Laboratory of Molecular Biology, NIH Seminar. "*Moxetumomab pasudotox in Pediatric ALL.*" Monday, October 27, 2014.
5. **Shah NN**. Minor Donor Ethics Conference, Co-Sponsored by CCR-Pediatric Oncology Branch and the Pediatric Blood and Marrow Transplant Consortium. "Children as Stem Cell Donors in Research: When is it Ethical? When is it approvable?" March 13, 2015

6. **Shah NN.** National Institute of Allergy and Infectious Diseases, Grand Rounds. “*A Patient with DOCK8 Deficiency and Two Transplants.*” Bethesda, MD (NIH Clinical Center). Friday, September 30 2016.
7. **Shah NN.** POB Research Seminar. “*The Race Against ALL, One CAR at a Time.*” Bethesda, MD (NIH Clinical Center). Thursday, February 9, 2017.
8. **Shah NN.** Office of AIDS Research. Conference Speaker, Beyond HIV: The Benefits of HIV Research/World AIDS Day, “*HIV- Inspires Effective Anti-Leukemia Therapy.*” NIH: National Institute of Allergy and Infectious Disease, Fishers Lane, Rockville, MD. December 1, 2017.
9. **Shah NN.** Demystifying Medicine Talk: “*Is Leukemia Curable? Challenges and Milestones in Current Approaches.*” Bethesda, MD (NIH). <https://videocast.nih.gov/summary.asp?Live=26659&bhcp=1> January 16, 2018.
10. **Shah NN.** Chronic GVHD Intramural Retreat. Talk: “*GVHD in the Era of Cell and Immunotherapy.*” Bethesda, MD (NIH). February 6, 2018.
11. **Shah NN.** Cancer Autoimmunity and Immunology Meeting. Talk: “*Toxicities Associated with Adoptive Cell Transfer.*” March 23, 2018
12. **Shah NN.** Advanced Oncology Education Series for Nurses: Cancer Immunotherapy Course. Talk, “*Adoptive Cell Therapy: CAR T-Cells.*” April 23, 2018.
13. **Shah NN.** NIH Research Festival. Talk, “*CAR-T Cell Therapy for AML.*” Wednesday, September 12, 2018.
14. **Shah NN.** POB Research Seminar: “*CAR-T Cell Therapy in Pediatric Leukemias: Bench to Bedside and Back Again.*” Thursday, October 11, 2018.
15. **Shah NN.** Advanced Oncology Education Series for Nurses, “*Adoptive Cell Therapy: CAR T-Cells.*” November 27, 2018
16. **Shah NN.** NCI Workshop on Cell-Based Immunotherapy for Solid Tumors, “*CAR T-Cell Therapy: Going Beyond the Test Drive.*” Tuesday, December 11, 2018
17. **Shah NN.** Demystifying Medicine Talk, “*CAR T-Cell Therapy in Pediatric Leukemia.*” Tuesday, February 26, 2019
18. **Shah NN.** Advanced Oncology Education Series for Nurses, “*Adoptive Cell Therapy: CAR T-Cells.*” Tuesday, April 30, 2019.
19. **Shah NN.** NIH Myelodysplastic Syndromes Symposium. “*CAR T-Cell Therapy in Pediatric Leukemia.*” Friday, July 12, 2019.
20. **Shah NN.** AACR SU2C Monthly Meeting NCI Presentation. “*HLH-like Manifestations of CD22 CAR T-cells: More than Just Severe CRS?*” Monday, March 9, 2020
21. **Shah NN.** FDA/NCI/CTEP Meeting. NIH COVID-19 Platform Trials. “*Compassionate Use Study of Tocilizumab in Cancer Patient with COVID-19*” June 5, 2020
22. **Shah NN.** NIH Clinical Center Grand Rounds. “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” Wednesday, January 6, 2021
23. **Shah NN.** Several yearly educational conferences to NCI/NHLBI/DTM and POB. Bethesda, MD (NIH Clinical Center)
24. **Shah NN.** MDS Symposium, “*CD33 CAR T-cells*” February 25, 2022NIH Clinical Center, Pediatric Remembrance Day, Keynote speaker. March 3, 2022.
25. **Shah NN.** 2022 NCI Cancer Immunology and Immunotherapy Conference, CCR Center of Excellence in Immunology. “*CAR T-cell Therapy in Pediatric Leukemia. Current Status and Future Directions.*” September 15, 2022
26. **Shah NN.** Translational Research in Clinical Oncology (TRACO), “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” October 3, 2022
27. **Shah NN.** 2022 NCI Cancer Immunology and Immunotherapy Conference, CCR Center of Excellence in Immunology. “*CAR T-cell Therapy in Pediatric Leukemia. Current Status and Future Directions.*” September 15, 2022
28. **Shah NN.** Translational Research in Clinical Oncology (TRACO), “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” October 3, 2022

29. **Shah NN.** Translational Research in Clinical Oncology (TRACO), “CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.” October 2023
30. **Shah NN.** Thoracic and GI Malignancies Branch Seminar, “CAR T-cells in Pediatric Leukemia: Current Status and Future Directions.” April 2024
31. **Shah NN.** Myeloid Malignancies Monthly Seminar, “*CAR T-cells for Myeloid Malignancies: So near and yet so far.*” April 3, 2024
32. **Shah NN.** Pediatric Hematology Oncology Core Lecture Series: Acute Lymphoblastic Leukemia. August 13, 2025.

Local/Regional

1. **Shah NN.** Life with Cancer Organization, Family Center. Pediatric Oncology Parent Night. “*Childhood Leukemia: Past, Present and Future.*” Fairfax, VA. September 24, 2013.
2. **Shah NN.** Pediatric Grand Rounds, University of Virginia, Department of Pediatrics. “*Tackling Post-Transplant Relapse, One Trial at a Time*” Charlottesville, VA. September 26, 2014.
3. **Shah NN.** Children’s Cancer Foundation Research Symposia. “*Immunotherapy for Childhood Leukemia.*” Landover, MD. June 1, 2016.
4. **Shah NN.** Children’s National Medical Center, Pediatric BMT Departmental Meeting. “*My Love Hate Relationship with CD22: The blood, sweat and tears of clinical research.*” Washington DC. January 12, 2017.
5. **Shah NN.** The Children’s Cancer Foundation, Inc. 4th Annual Research Symposium: Solving Childhood Cancer through Collaboration. “*Phase I CD22 CAR T-Cell Trial Updates.*” Landover, MD. June 5, 2019.
6. **Shah NN.** Food and Drug Administration (FDA); Center for Drug Evaluation and Research (CDER); Pediatric Subcommittee of the Oncologic Drugs Advisory Committee (pedsODAC) Meeting. June 20, 2019
7. **Shah NN.** Walter Reed Systems Pediatric Hematology/Oncology Speaker. “CAR T-cell trials in the Pediatric Oncology Branch.” (Virtual) Friday, July 24, 2020
8. **Shah NN.** Children’s National Medical Center, Pediatric Hematology/Oncology Grand Rounds. “CAR T-cell Associated HLH.” October 1, 2020.
9. **Shah NN.** Pediatric Specialists of Virginia at INOVA Schar Cancer Institute Journal Club. “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” Tuesday, January 19, 2021
10. **Shah NN.** FDA Speaker Series-American Society of Hematology. “*CAR T-cell Trials for Hematologic Malignancies in Children and the AYA Population*” November 1, 2022
11. **Shah NN.** Lymphoma Research Foundation. “*Minimal residual disease in pediatric B-ALL*” Arlington, VA. September 20, 2023.
12. **Shah NN.** University of Maryland Pediatrics Grand Rounds. “*The future of cell and gene therapy: lessons learned from the experience with CAR T-cells in B-cell malignancies.*” May 8, 2025

National

13. **Shah NN.** National Marrow Donor Program Council Meeting. “*Treating Disease Relapse after Allogeneic HSCT Transplantation: Antibody and other Immunotherapeutic Approaches to Treat Post-HSCT Relapse.*” Friday, Minneapolis, MN. November 7, 2014.
14. **Shah NN.** Children’s Hospital of Philadelphia, Division of Pediatric Hematology/Oncology and Transplantation. Departmental Meeting. “*Vasculopathy, Infection and Cancer: A Role for Transplantation.*” Philadelphia, PA. May 13, 2015.
15. **Shah NN.** Society of Adolescent and Young Adult Oncology: From Pediatric to Adult Acute Lymphoblastic Leukemia: A Common Strategy for Cure. “*Marqibo® in Acute Lymphoblastic Leukemia.*” Los Angeles, CA Monday, October 26, 2015.

16. **Shah NN.** Pediatric Blood and Marrow Transplant Consortium/American Society of Pediatric Hematology Oncology—Plenary Session: Advances in Stem Cell Therapy for Pediatric ALL. “*Bridging Therapy Prior to BMT for ALL.*” Minneapolis, MN. May 11, 2016.
17. **Shah NN.** Children’s Oncology Group: Novel Therapies for Relapsed ALL. “*CD22 Antigen Expression.*” Wednesday, Atlanta, GA. September 14, 2016.
18. **Shah NN.** ISBioTech 7th Spring Meeting. “*Lessons Learned with CAR T-Cell Therapies for Acute Lymphoblastic Leukemia.*” Washington DC. March 6, 2017.
19. **Shah NN.** Children’s Oncology Group, Spring Meeting. “*Targeting CD33 and CD123 for AML CAR.*” March 29, 2017.
20. **Shah NN.** American Society of Clinical Oncology, Abstract Discussant. “*Expanding CAR-T Cells for Extramedullary Disease.*”. Chicago, IL Saturday, June 3, 2017
21. **Shah NN.** FAES-CAR Technology Course. Talk, “Current Clinical Applications and Considerations of CAR-T Cell Therapy.” March 16, 2018.
22. **Shah NN.** Translational Science 2018 Conference, “Top 10 Clinical Achievement Award,” Talk, “*New CAR Therapy for Relapsed Leukemia Patients.*” April 20, 2018.
23. **Shah NN.** 4th International Workshop, Biology, Prevention, Treatment of Relapse After Allogeneic Hematopoietic Stem Cell Transplantation. Steering Committee, Session Head, Invited Speaker. Chicago, IL. September 21-22, 2018.
 - a. *Novel Therapies as a Bridge to HSCT and Maintenance Therapy post-HSCT in ALL*
 - b. *Relapse post CAR-T Cell Therapy*
24. **Shah NN.** “*Multispecific CAR-T Cell Targeting in ALL: What Does the Future Hold?*” Society for Adolescent and Young Adult Oncology Conference, From Pediatric to Adult Acute Lymphoblastic Leukemia: The Age of Cellular Therapy. Newport Beach, California. November 5, 2018.
25. **Shah NN.** Memorial Sloan Kettering Cancer Center: Clinical Application of CAR T-Cells. “*CAR T-cell Therapy: Workflow Challenges and Optimal Timing for Delivery*” New York, New York. March 14-15, 2019.
26. **Shah NN.** American Association of Cancer Research: Advances in Organ Site Research, Emerging Immunotherapies for Childhood Cancer. “*The Evolving Landscape of CAR T-Cell Based Immunotherapy in Hematologic Malignancies.*” Atlanta, GA. Monday, April 1, 2019.
27. **Shah NN.** American Society for Transplantation and Cellular Therapy. Consensus Conference on Management of T-cell Therapy Toxicities. Silver Spring, MD. Tuesday, July 30, 2019
28. **Shah NN.** University Hospitals: Cleveland Medical Center, Division of Pediatric Hematology/Oncology. Invited Speaker. “*CAR T-Cell Therapy: Beyond CD19 Targeting.*” Cleveland, OH. Friday, July 19, 2019.
29. **Shah NN.** Children’s Mercy Hospital, Visiting Professor, Division of Pediatric Hematology/ Oncology. “*CAR T-Cell Therapy: Beyond CD19 Targeting.*” Kansas City, MO. Tuesday, July 23, 2019.
30. **Shah NN.** Society of Hematology Oncology, (SOHO), “*CAR-T Therapy for ALL: Moving Beyond Single Agent Targeting.*” Houston, TX. Thursday, September 12, 2019.
31. **Shah NN.** First International Workshop on CAR-T (iWCAR), “Mechanisms of Resistance to CAR T-cells.” Session Chair. Miami, FL. Sunday, October 13, 2019.
32. **Shah NN.** Stanford Cancer Cell Therapy and Blood and Marrow Transplant Symposium: Update on Current Advances in BMT and Cancer Cell Therapy. *Update on CD22 CAR T-cells for B-ALL.* Stanford, CA. April 2, 2020
33. **Shah NN.** CARTOX Program Seminar Speaker. MD Anderson. “*HLH-like Manifestations of CD22 CAR T-cells: More than just Severe CRS?*” Houston, TX (Virtual) Friday, May 1, 2020.
34. **Shah NN.** Seventh Annual Pediatric Cancer Symposium: Exploring Immunotherapy in Pediatric Cancers. Children’s Hospital of Wisconsin MACC Fun Center for Cancer and Blood Disorders. “*CAR T-cell therapy: Going beyond CD19.*” (Rescheduled due to COVID)
35. **Shah NN.** 8th Annual Translational Workshop on Hematologic Malignancies: Transforming Therapy in Blood Cancers. “*CAR T-cells in Pediatric ALL: Current Status and Future Directions.*” (Virtual) Friday, October 16, 2020

36. **Shah NN.** American Society of Hematology (ASH) Workshop on Developing Biomarkers for CAR T-cells and BiTES Toxicity and Efficacy. October 7, 2020
37. **Shah NN.** Massachusetts General Hospital, Internal Medicine and Pediatrics Grand Rounds. “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” Thursday, April 29, 2021
38. **Shah NN.** Cellicon Valley ’21: Future of cell and gene therapies. “*Long-term toxicities, hypogammaglobulinemia, cytopenias and infection risks.*” Thursday, May 6, 2021
39. **Shah NN.** Baylor College of Medicine, Texas Children’s Hospital. Pediatric Hematology/Oncology Research Seminar Series. “*CAR T-cell therapy: Beyond CD19.*” Thursday, May 6, 2021
40. **Shah NN.** Children’s Wisconsin, Northwest Mutual Foundation, Pediatric Cancer Symposium: Exploring Immunotherapy in Pediatric Cancers. “*CAR T-cell therapy: Beyond CD19.*” Wednesday, May 12, 2021 A.C. Camargo Cancer Center’s 5th Next Frontiers to Cure Cancer 2021. “*CAR T-cell therapy: Beyond CD19.*” Saturday, June 26, 2021
41. **Shah NN.** Transplantation Meeting. “*CAR T-cell therapy: Beyond CD19.*” Thursday, August 26, 2021
42. **Shah NN.** Mayo Clinic Updates in CAR T-cell Therapy 2021. “*CAR T-cell therapy: Beyond CD19.*” Thursday, August 26, 2021
43. **Shah NN.** Blood Cancer Discovery, Webinar, CAR T-cell manufacturing. September 27, 2021
44. **Shah NN.** Pediatric Transplantation and Cell Therapy Fall Meeting: CAR T-cell Late effects and CD33 CAR T-cell updates. September 27, 2021
45. **Shah NN.** St. Jude Children’s Research Hospital, Research Seminar. “*CAR T-cells: Beyond CD19.*” September 29, 2021
46. **Shah NN.** Infectious Disease (ID) Week. “*Novel cell and immunotherapies: how do they work and effect on immunotherapy.*” Saturday, October 2, 2021
47. **Shah NN.** Society of ImmunoTherapy of Cancer: Bispecific T cell engagers virtual workshop. “*CRS and neurotoxicity: Lessons learned from CAR T-cells.*” October 1, 2021
48. **Shah NN.** National Marrow Donor Program: Mid-Atlantic Virtual Roundtable. “*CAR-T for pediatric patients with B-ALL: Complement or cure?*” November 3, 2021.
49. **Shah NN.** AcCELLerate Forum Virtual Workshop. “*CAR T-cells and HLH.*” November 19, 2021
50. **Shah NN.** Johns Hopkins Hospital/Sidney Kimmel Comprehensive Cancer Center Oncology Grand Rounds. “*CAR T-cells in Hematologic Malignancies: Beyond CD19.*” December 10, 2021
51. **Shah NN.** Caring Cross, Monthly Seminar. “*Current Challenges in CD19 CAR T-cells for Pediatric ALL: Implications for the Global Community.*” January 21, 2022.
52. **Shah NN.** Medical College of Wisconsin, Hematology & Oncology Grand Rounds. “*CAR T-cells and Pediatric ALL: Where do we go from here?*” January 13, 2022.
53. **Shah NN.** Histiocyte Society Invited Talk. “*The Yin and Yang of HLH and T-cell engaging Therapies: CAR T-cell associated HLH.*” February 10, 2022
54. **Shah NN.** Memorial Sloan Kettering Cancer Center, Grand Rounds. “*CAR T-cell associated HLH (CarHLH)*” March 8, 2022.
55. **Shah NN.** Pediatric Acute Lung Injury & Sepsis Investigators Network (PALISI), Hematopoietic Cell Transplant-Comorbidities Subgroup Meeting. “*CAR-HLH*” March 28, 2022.
56. **Shah NN.** UCSF Pediatric Malignancies Meeting, Advances in Immunotherapy and CAR-T cell therapy. “*CAR T-cells and Pediatric Leukemia: Where do we go from here?*” March 23, 2022.
57. **Shah NN.** Children’s Oncology Group, HSCT and Cell Therapy Committee, Spring Meeting. “*CAR T-cells and Pediatric ALL: Next0Gen Approaches.*” April 5, 2022.
58. **Shah NN.** American Society of Transplantation and Cellular Therapy/CIBMTR Tandem Annual Meeting, Advanced Practice Provider. “*CAR T-cells and Pediatric ALL: Updates and Future Directions.*” April 23, 2022.
59. **Shah NN.** American Society of Transplantation and Cellular Therapy/CIBMTR Tandem Annual Meeting, Pediatrics Day. “*Treatment of Post CAR T-cell Relapse.*” April 25, 2022.
60. **Shah NN.** American Society of Transplantation and Cellular Therapy/CIBMTR Tandem Annual Meeting, Pediatrics Day. “*Meet-the-Professor*” April 25, 2022.

61. **Shah NN.** American Society of Pediatric Hematology Oncology, Workshop. “*AML Directed CAR T-cells: The Next Frontier.*” May 5, 2022
62. **Shah NN.** Women in Lymphoma, WiLing Wednesdays. “*Mechanism of Resistance to CAR T-cells.*” May 11, 2022.
63. **Shah NN.** American Society of Gene and Cell Therapy, Pre-Meeting: Immune Effectors Cell Therapies Workshop. “*CarHLH—An Initially Overlooked Complication of CAR T-cell Therapy.*” May 15, 2022
64. **Shah NN.** 8th Conference on Cell Therapy and Regenerative Medicine, Midwest Stem Cell Therapy Center. “*CD19 CAR T-cells and Pediatric ALL: Current Status and Future Directions.*” September 16, 2022.
65. **Shah NN.** SITC 38th Annual Meeting. Immune therapy toxicities, evolving frontiers. “*Immune effector cell associated HLH-like syndrome.*” San Diego, CA November 4, 2023.
66. **Shah NN.** PALISI (Pediatric Acute Lung Injury and Sepsis) HCT-CI Subgroup. “*CAR T-cells and HLH*” September 19, 2022
67. 10th Annual Translational Workshop on Hematologic Malignancies. “*Extramedullary Disease and Response to CAR T-cells.*” September 22, 2022
68. PI-DDN, “HLH-like complications of CAR T-cell Therapy.” October 26, 2022
69. **Shah NN.** National Marrow Donor Program, the ONE Forum. “*The Role of CAR T-cell Therapy in Pediatric Patients.*” November 5, 2022
70. **Shah NN.** American Society of Hematology Annual Meeting. Education Program Speaker. “*Long term follow up of CD19-CAR T-cell Therapy in Children and Young Adults with B-ALL.*” San Diego, CA
71. **Shah NN.** Society for Immunotherapy in Cancer, Winter School. Faculty Speaker. “*Immunotherapeutic Strategy: Adoptive Cell Therapy.*” January 17, 2023
72. **Shah NN.** Memorial Sloan Kettering Pediatric Grand Rounds, “*CAR T-cells: Prevention and Treatment of Relapse.*” January 26, 2023
73. **Shah NN.** Keystone Symposia, Emerging Cellular Therapies at the Forefront of Cancer Immunotherapy. “*CAR T-cells in pediatric B-cell ALL: Reflections on the past decade.*” January 30, 2023
74. **Shah NN.** 2023 Tandem Meetings: Transplantation and Cellular Meetings of ASTCT and CIBMTR. Orlando FL. February 15-19, 2023
 - a. “*HLH-like Toxicities and CAR T-cells*, Nursing Track, Friday, February 17, 2023
 - b. “*Delayed Hematopoietic recovery in a Pediatric Patient Undergoing CAR T-cell Therapy.*” Saturday, February 18, 2023
75. **Shah NN.** ASH Summit on Immunotherapies for Hematologic Diseases, “*Mechanism of Resistance to CAR T-cell Immunotherapy: Relapse Associated with Late Immunotherapy Failure.*” Washington DC. March 2-3, 2023.
76. **Shah NN.** Pediatric Onco-Critical Care Conference, “*HLH-like Cytokine Release Syndrome.*” St. Jude Children’s Research Hospital, Memphis, TN. April 19-20, 2023.
77. **Shah NN.** Children’s Hospital Los Angeles, Hematology Grand Rounds. “*CAR T-cells: a Decade in Review.*” Los Angeles, CA. Wednesday, May 17, 2023.
78. **Shah NN.** American Society of Clinical Oncology. “*CAR T-Related Toxicities: Everything Clinicians Need to know. Perspective on cytopenias and HLH: Management in Patients with Hematologic Malignancies.*” Chicago, IL. June 5, 2023.
79. **Shah NN.** SITC Advances in Clinical Immunotherapy. “*CD19 CAR T-cells in children and young adults with B-ALL.*” Washington DC. August 17, 2023,
80. **Shah NN.** Children’s Oncology Group Annual Meeting. “*CAR T-cell related multicenter collaborations.*” Atlanta, GA. September 6, 2023.
81. **Shah NN.** LUPUS2023. Keynote speaker. “*CD19 CAR T-cells: Current status and future directions.*” Naples, FL. September 30, 2023.

82. **Shah NN.** AML CAR T-cell workshop. “*CD33 CAR T-cells in children and young adults with relapsed/refractory AML*” St. Jude Children’s Hospital. Memphis, TN. September 25, 2023.
83. **Shah NN.** SITC 38th Annual Meeting. Immune therapy toxicities, evolving frontiers. “*Immune effector cell associated HLH-like syndrome.*” San Diego, CA. November 4, 2023.
84. **Shah NN.** Updates in Cancer Novel Immunotherapies 2023. Mayo Clinic. “*Post CAR T-cell Transplant in B-ALL*” Rochester, MN. October 6, 2023.
85. **Shah NN.** Pediatric Immunotherapy-Discovery and Development Network Presentation, “*Immune effector cell associated HLH-like syndrome.*” (Virtual) January 12, 2024
86. **Shah NN.** Columbia University, Department of Hematology/Oncology Grand Rounds, “*CAR T-cells for long-term cure in B-ALL*” (Virtual) February 14, 2024
87. **Shah NN.** ASTCT & CIBMTR Tandem Meetings February 2024
 - a. APP Track: How I treat refractory cytokine release syndrome and ICANS
 - b. Scientific Concurrent Sessions: Implications of sequential targeting and biomarker informed risk stratification
88. **Shah NN.** ASPHO American Society of Pediatric Hematology/Oncology Frank A. Oski Memorial Lectureship, Seattle, WA. “*The CAR T-cell Way: The quintessential embodiment of team science.*” April 5, 2024
89. **Shah NN.** Cellular Immunotherapy in Pediatric Oncology, St. Jude Children’s Research Hospital, Memphis, TN. “*Approaches to extending durable remissions following CAR T-cells.*” June 2024
90. **Shah NN.** Histiocyte Society Webinar. “*Immune effector cell-associated HLH-like syndrome (IEC-HS).*” June, 6, 2024
91. **Shah NN.** Emil J Freireich Leukemia Hematology Grand Rounds, MD Anderson Cancer Center. “Two is better than one? Challenges in combinatorial antigen CAR T-cell targeting in B-ALL.” July 10, 2024.
92. **Shah NN.** Stanford Pediatric Hematology/Oncology Bass Center Grand Rounds. “*Immune Effector Cell-associated HLH-like Syndrome.*” Thursday, October 24, 2024
93. **Shah NN.** Division of Hematology/Oncology Rounds, Hospital for Sick Children (SickKids), Toronto. “*Post CAR T-cell cytokine release syndrome and HLH-like syndrome.*” Thursday, October 24, 2024
94. **Shah NN.** University of Colorado Cancer Center Symposium Series. Aurora, CO. “*Two is Better than One? Challenges and Future Directions in Combinatorial CAR T-cell Targeting in B-ALL.*” Visiting professor. Tuesday, October 29, 2024
95. **Shah NN.** Cleveland Clinic Children’s Lecture Series. Cleveland, OH. “*Two is Better than One? Challenges and Future Directions in Combinatorial CAR T-cell Targeting in B-ALL.*” Visiting professor. Tuesday, December 3, 2024
96. **Shah NN.** AACR Special Conference in Cancer Research Acute Lymphoblastic Leukemia, San Diego. “*Cellular therapies in ALL.*” Saturday, March 8, 2025—Meeting cancelled
97. **Shah NN.** Children’s Hospital of Philadelphia Research Institute, Normal and Malignant Hematopoiesis Research Affinity Group. Children’s Hospital of Philadelphia, Philadelphia, PA. “*CAR T-cells in AML.*” Monday, March 10, 2025
98. **Shah NN.** Hemophagocytic Lymphohistiocytosis (HLH) Across Pediatric Specialties: Spotlight on Immune Effector Cell HLH Like Syndrome. Keynote Speaker. Duke University, Raleigh, NC. “*Immune effector cell associated HLH-like syndrome.*” Thursday, March 13, 2025.
99. **Shah NN.** City of Hope Children’s Cancer Center Speaker Series. “The evolving paradigm of antigen modulation following immunotherapy.” Thursday, March 27, 2025
100. **Shah NN.** Acute Leukemia Research and Care Network (ALRCaN) Resonance Lecture Series: “*Two is better than one? Challenges in combinatorial antigen CAR T-cell targeting in B-ALL.*” September 5, 2025.
101. **Shah NN.** 3rd International AML CAR Workshop. “*CD33 CAR T-cells*” and “*Project EVOLVE and lineage switch.*” September 29, 2025.

102. **Shah NN.** Therapeutic Advances in Childhood Leukemia & Lymphoma. “*Immune effector cell working group updates.*” Sunday, November 9, 2025.
103. **Shah NN.** Pediatric Hematology, Oncology and Stem Cell Transplantation Grand Round Series at Maria Fareri Children’s Hospital at New York Medical College. “*Two is better than one? Challenges in combinatorial antigen CAR T-cell targeting in B-ALL.*” December 11, 2025.
104. **Shah NN.** Translational Research Cancer Centers Consortium (TRCCC) Plenary Presentation. “*Bedside to Bench: The role of the bedside clinician in investigating novel CAR T-cell toxicities.*” February 25, 2026.

International

105. **Shah NN.** 2015-Innovative Therapies for Children with Cancer (ITCC)/International BFM/Therapeutic Advances in Childhood Leukemia & Lymphoma (TACL) International Meeting. “*Marqibo® in Acute Lymphoblastic Leukemia.*” Toronto, Canada. Monday, October 19, 2015.
106. **Shah NN.** 1st Immuno-Oncology Society of India Congress, 2019. Immunotherapies in Cancer: Challenge in translating from bench to bedside. Tata Memorial Centre (TMC) Mumbai. “*CAR T-Cell Therapy in ALL: Challenges and Future Directions.*” Mumbai, India. March 15-17, 2019.
107. **Shah NN.** Therapeutic Advances in Childhood Leukemia and Lymphoma: Investigators Conference. BC Children’s Hospital and Research Institute. “*Updates on Protocol T2012-002, A Pilot Study of Vincristine Sulfate Liposome Injection (Marqibo®) in Combination with UK ALL R3 Induction Chemotherapy for Children, Adolescents and Young Adults with Relapse of Acute Lymphoblastic Leukemia.*” Vancouver, BC. April 7-9, 2019.
108. **Shah NN.** XIII International Society of Paediatric Oncology ASIA Conference 2020. “*The Emerging Role and Future Directions of CAR T-cell Therapies.*” (Cancelled-COVID19). Mumbai, India Friday, March 27, 2020
109. **Shah NN.** European Society for Blood and Marrow Transplantation (EBMT)/American Society for Transplantation and Cellular Therapy (ASTCT) Joint Webinar: Treatment Options of COVID19 Patients with a Focus on Stem Cell Transplant. “*CAR T-Cells and COVID-19*” Tuesday, May 26, 2020
110. **Shah NN.** 5th International Conference on Immunotherapy in Pediatric Oncology (CIPO2020): Expanding the Therapeutic Potential of Immunotherapy in Pediatric Oncology. “*CD22 CAR T-cells in the Clinic*” (Rescheduled due to COVID19) Friday, September 25, 2020
111. **Shah NN.** Immuno-Oncology Society of India, 2nd Annual Congress 2020, “*Immuno-Oncology towards 2021: Reboot, Resolve and Evolve.*” Invited as a Keynote Speaker, “*CAR T-cells: Beyond CD19.*” October 31, 2020
112. **Shah NN.** Programme Preparatory Call: Paediatric Strategy Forum on Medicinal Product Development of CAR T-cells children. “*CAR T-cell Therapy in Pediatric ALL: Considerations and Future Directions.*” Friday, December 18, 2020
113. **Shah NN.** Societe Internationale D’oncologie Pediatrique (SIOP)-ASIA 2021. Mumbai, India. “*The Emerging Role and Future Direction of CAR T-cell Therapies.*” Friday, March 19, 2021
114. **Shah NN.** 3rd International Workshop on CAR-T. “*Approaches to Dual Targeting with CARTs.*” Wednesday, April 21, 2021.
115. **Shah NN.** ACCELERATE: Innovation for Children and Adolescents with Cancer, in collaboration with the European Medicines Agency with participation of the US Food and Drug Administration. Paediatric Strategy Forum for Medicinal Product Development of CAR T-cells in children. “*Alternate Targets for B-Cell ALL.*” May 25, 2021
116. **Shah NN.** TATA Memorial Hospital “*CAR T-cell Therapy in Pediatric Leukemia: Current Status and Future Directions.*” Saturday, July 17, 2021
117. **Shah NN.** International Congress of BMT 2021, 26th Annual Congress of Korean Society of Blood and Marrow Transplantation Meeting. “*CAR T-cell therapy: Beyond CD19.*” Thursday, August 26, 2021

118. **Shah NN.** 6th Annual Congress on Controversies in Stem Cell Transplantation and Cellular Therapies (COSTEM). “*Controversy: Are dual CAR T-cells more effective?*” October 24, 2021
119. **Shah NN.** International Workshop on CAR-T and Immunotherapies (iwCAR), 4th International Workshop on CAR-T, “*CD22 CAR T-cells: Current Status and Future Directions.*” Saturday, April 20, 2022
120. **Shah NN.** Saudi Arabian Pediatric Hematology Oncology Society, Annual Symposium. “*Treatment of Post CAR T-cell Relapse.*” May 20, 2022.
121. **Shah NN.** Terapias Avancadas Celulas e Gene (TACG). “*Relapse after CAR T-cell failure: Mechanisms and Management.*” August 6, 2022
122. **Shah NN.** Annual Meeting, Histiocyte Society. “*CAR T-cells and HLH*” September 18, 2022.
123. **Shah NN.** TATA Memorial Hospital. “*CAR T-cell Trials for Hematologic Malignancies in Children and the AYA Population*” November 25, 2022
124. **Shah NN.** Series on Advancements in Cell Therapy, CAR T & Cell Therapy Centre (CTCTC), Tata Memorial Hospital. “*CAR T-cell Therapy: Factors Affecting Clinical Outcomes in B-Cell Malignancies.*” Mumbai, India (Virtual). January 6, 2023,
125. **Shah NN.** Westhafen Intercontinental Group, “*Evaluation of Lineage Switch*” Paris, France. April 22-23, 2023.
126. **Shah NN.** 3rd International Symposium on Biology, Prevention and Treatment of Toxicities After Transplantation and Cellular Therapy. “*Immune effector cell associated HLH-like syndrome.*” Memorial Sloan Kettering Cancer Center, New York. Friday, April 28, 2023.
127. **Shah NN.** International Society Cell & Gene Therapy North American Regional Meeting. Plenary Speaker. “*Peri-CAR T-cell risk factors: Optimizing durable remissions in B-ALL.*” Houston, TX. September 9, 2023.
128. **Shah NN.** Series on Advancements in Cell Therapy “*CAR T-cells for Myeloid Malignancies: So near and yet so far.*” Mumbai, India. February 3, 2024.
129. **Shah NN.** 6th International workshop on CAR-T and Immunotherapies (iwCAR-T),
 - a. CAR T-cells and Pediatric Access, “*CAR-pooling: Innovative strategies in pediatric CAR T-cell development.*” April 20, 2024
 - b. “*CAR T-cells and pediatric AML,*” April 21, 2024
130. **Shah NN.** 9th Annual Cell and Gene Therapy Symposium, Centre for Stem Cell Research, Christian Medical College, Vellore, Tamil Nadu, India. “*CAR T-cell induced T-cell Malignancies.*” Friday, August 2, 2024
131. **Shah NN.** Indian Society for Blood & Marrow Transplantation. “*CAR T-cell Therapy for Acute Lymphoblastic Leukemia.*” Wednesday, February 5th, 2025. –Unable to present due to restrictions on federal employee communications.
132. **Shah NN.** EBMT (European Society for Blood and Marrow Transplantation), 51st Annual Meeting. Florence, Italy. “*Relapse in acute leukemia*”. Monday, March 31, 2025—Unable to present due to restrictions on federal employment travel
133. **Shah NN.** Cole Foundation, Research Celebration Day, 18th year. “*CAR T-cell Therapy in Adolescent and Young Adults: 2025 and Beyond!*” May 2, 2025
134. **Shah NN.** Asia Pacific Vaccine and Immunotherapy Congress, APVIC 2025. Brisbane, Australia. “*Advances in CAR T-cell therapy in B-ALL.*” May 20-22, 2025
135. **Shah NN.** Pediatric Immuno-Oncology Forum, Queensland Children’s Hospital. “*Limitations of CAR T-cell therapy in pediatric leukemia.*” May 22, 2025
136. **Shah NN.** 3rd Australian Paediatric Immunotherapy Conference. “*Two is better than one? Challenges in combinatorial antigen CAR T-cell targeting in B-ALL.*” May 23, 2025
137. **Shah NN.** 9th French International symposium, ‘CAR T Day 2025.’ “*CAR T-cells in Pediatric Cancer.*” September 12, 2025

Planned meetings (future):

1. iwCAR 2026, Invited speaker. April 25, 2026

Meeting Organizer or Chair:

Future:

- Pediatric Transplantation and Cell Therapy Pediatric Day Annual Tandem Meeting Chair, February 2028
- American Society of Hematology Annual Meeting Education Co-Chair, December 2027

Completed:

1. Minor Donor Ethics Conference, Co-Sponsored by CCR-Pediatric Oncology Branch and the Pediatric Blood and Marrow Transplant Consortium. “Children as Stem Cell Donors in Research: When is it Ethical? When is it approvable?” Program Chair. March 13, 2015
2. 4th International Workshop, Biology, Prevention, Treatment of Relapse After Allogeneic Hematopoietic Stem Cell Transplantation. Steering Committee, Session Head, Invited Speaker. September 21-22, 2018. Chicago, IL
3. American Course on Drug Development and Regulatory Sciences-NIH Workshop: Cell-Based Immunotherapy: From Bench to Bedside and Beyond. Chair, Session 4: Challenges and Opportunities in Clinical Studies.
4. 5th International Workshop on the Biology, Prevent, and Treatment of Relapsed After Allogeneic Hematopoietic Stem Cell Transplantation. Session Chair. October 2020, New York, New York (Rescheduled to October 2021 due to COVID19)
5. CAR T-cell Therapy: Beyond the Storm, Thursday, May 14, 2020. Conference Chair and Organizer. Bethesda, MD. <https://ncifrederick.cancer.gov/events/conferences/car-t-cell-therapy-beyond-storm>
6. American Society of Transplantation and Cellular Therapy/CIBMTR, Pediatrics Day. Session Chair: “CAR T-cell therapy: Real World Topics” April 25, 2022.
7. American Society of Pediatric Hematology Oncology, Workshop Chair. “Challenges of AML CAR T-cell Therapy in Children and Young Adults.” May 5, 2022
8. Investigations in Myeloid neoplasms and Acute lymphoblastic leukemia in Children with Trisomy 21. (IMPACT21) Conference Chair and Organizer. Tuesday, May 10, 2022. <https://ncifrederick.cancer.gov/events/conferences/impact21>
9. ASTCT AcCELLerate Forum, Chair for “Toxicities” Thursday, November 17-Friday, November 18, 2022.
10. American Society of Hematology, Annual Meetings, Scientific Workshop Chair. “Bedside to Bench: Dissecting Emergent CAR T-cell Toxicities Beyond CRS and ICANS.” Friday, December 9, 2022
11. ASTCT-CIBMTR Annual Meetings, Oral Abstract Session Chair. Wednesday, February 15, 2023
12. Insights in Pediatric CAR T-cell Immunotherapy: Recent Advances and Future Directions (INSPIRED) Symposium, Meeting organized and Chair. Wednesday, March 1, 2023. <https://ncifrederick.cancer.gov/events/conferences/INSPIRED2023>
13. ASGCT CAR T-cell and Immune Effectors Workshop, Chair. Tuesday, May 16, 2023
14. SITC Advances in Cancer Immunotherapy Workshop: Co-Chair, Cell therapies and T-cell engagers workshop. August 17, 2023
15. Accelerate innovation for children and adolescents with cancer. Hybrid models for development of CAR T-cells in children and adolescents with malignancy: Relative roles of academia and industry, Co-Chair. September 22, 2023.
16. 2023 AcCELLerate Forum: Creating a sustainable ecosystem of cell and gene therapy. Co-Chair, Emergent toxicities and management thereof. October 2-3, 2023.
17. International Society for Cell & Gene Therapy and the American Society for Transplantation and Cellular Therapy, Cellular Therapy Training Course. Invited faculty and planning committee member. October 23-27, 2023
18. DMV Cell and Gene Therapy Forum, Planning Committee, November 2, 2023

19. Relapse after HSCT Workshop, Steering Committee Member and Session Chair, November 10-11 2023
20. ASTCT and CIBMTR Tandem Meetings,
 - Pediatric Track Chair, Late effects after CAR T-cell therapy: A new paradigm. February 21, 2024
 - Scientific Concurrent Session Chair: Evolving landscape for treatment of B-ALL
21. INSPIRED (Insights in Pediatric CAR T-cell Immunotherapy: Recent Advances and Future Directions) Symposium, Conference organizer. September 2025
22. Relapse after HSCT Workshop, Steering Committee Member and Session Chair, November 2025