Stanford

Crystal Mackall

Ernest and Amelia Gallo Family Professor and Professor of Pediatrics and of Medicine

Pediatrics - Hematology & Oncology

NIH Biosketch available Online Curriculum Vitae available Online

CONTACT INFORMATION

- **Administrative Contact**

  Carol Sinoben - Executive Asst.

  Email csinoben@stanford.edu

  Tel 650-725-9670

Bio

BIO

Crystal L Mackall MD is the Ernest and Amelia Gallo Family Professor and Professor of Pediatrics and Medicine at Stanford University, the Founding Director of the Stanford Center for Cancer Cell Therapy, Co-Leader of the Stanford Cancer Immunotherapy Program and Director of the Parker Institute for Cancer Immunotherapy @ Stanford. During a career spanning more than three decades, she has led an internationally recognized translational research program focused on immune-oncology. Her work has advanced understanding of fundamental immunology and translated this understanding for the treatment of human disease with a major focus on children's cancers. She has led numerous first-in-human and first-in-child clinical trials spanning dendritic cell vaccines, cytokines, and adoptive immunotherapy using NK cells and genetically modified T cells. Her work is credited with identifying an essential role for the thymus in human T cell regeneration (NEJM 1995) and discovering IL-7 as the master regulator of T cell homeostasis (Blood 2001, J Exp Med 2008). Her group was among the first to demonstrate impressive activity of CD19-CAR in pediatric leukemia (Lancet 2015), established the first grading scale and management guidelines for cytokine release syndrome (Blood 2014), and developed CD22-CAR, an effective salvage therapy for CAR19 resistant B cell malignancies (Nat Med 2018, J Clin Onc 2020, Blood 2021, Lancet 2024). She is leading a team demonstrating impressive activity of GD2 targeting CARs for pediatric diffuse intrinsic pontine glioma (Nat Med 2018, Nature 2022, Nature 2025), arguably the first data to demonstrate significant activity of CAR T cells in solid cancers. Using both bench-based and patient centered discovery research, she has led globally in defining mechanisms of resistance to T cell immunotherapies and creating and testing next generation platforms engineered to overcome resistance. Her group was the first to identify T cell exhaustion as a major cause of CAR T cell failure (Nat Med 2015), then created the first exhaustion-resistance (Nature 2019) and exhaustion-reversal platforms (Science 2021). Her group discovered a role for mediator kinase in regulating T cell differentiation (Science 2022) and a role for FOXO1 in regulating T cell memory (Nature 2024), implicated macrophage mediated clearance of activated T cells in resistance to cell therapies and created an engineered CD47 to overcome this axis (Nature 2025). Mackall's group uses synthetic biology to engineer safer and more effective cellular therapeutics, including creation of a best-in-class regulatable "remote-controlled" CAR T cell platform (Cell, 2022) and multiplex gene regulation via Cas13d based RNA degradation (Cell, 2024). She is a member of the National Academy of Medicine, American Society of Clinical Investigation and American Academy of Physicians and is a fellow of the AACR Academy and the Academy of Immuno-oncology. She was the recipient of the Lloyd Old Award in 2025 for outstanding and innovative research in cancer immunotherapy from the Cancer Research Institute, the Smalley Award in 2021 for outstanding contributions to cancer immunotherapy from the Society for the Immunotherapy

of Cancer, the AACR-St.Baldrick's Distinguished Achievement Award in 2021 for Pediatric Cancer Research, the Nobility in Science Award from the Sarcoma Foundation of America in 2022 and the Edward Netter Leadership Award from the Alliance for Cancer Gene Therapy in 2023. She has published over 300 manuscripts and her h-index in January 2026 according to google scholar was 120. She has co-founded 3 biotech companies: Lyell Immunopharma, CARGO Therapeutics and Link Cell Therapies as well as ACCESSforKIDS, a non-profit dedicated to commercializing cell therapies for pediatric cancers.

ACADEMIC APPOINTMENTS

- Professor, Pediatrics - Hematology & Oncology
- Professor, Medicine - Blood & Marrow Transplantation
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Founding Director, Stanford Center for Cancer Cell Therapy, (2017- present)
- Director, Parker Institute for Cancer Immunotherapy at Stanford, (2016- present)
- Associate Director, Stanford Cancer Institute, (2016- present)
- Leader, Cancer Immunology and Immunotherapy Program, Stanford Cancer Institute, (2016- present)
- Director, Cancer Immunotherapy Program, Department of Pediatrics, (2016- present)

HONORS AND AWARDS

- Italian-American Cancer Foundation Prize for Excellence in Medicine the Clinical Sciences, Italian-American Cancer Foundation (2025)
- Lloyd Old Award, Cancer Research Institute/AACR (2025)
- R. Lois Murphy Award, Memorial Sloan Kettering Cancer Center (2024)
- Almanac of Women Leaders in Pediatric Oncology, International Society of Pediatric Oncology (2023)
- Edward Netter Leadership Award, Alliance for Cancer Gene Therapy (2023)
- Fellow of the Academy of Immuno-oncology, Society for the Immunotherapy of Cancer (2023)
- George Stamatoyannopoulos Award Lecture, American Society for Gene and Cell Therapy (2023)
- Pantheon Award Finalist, California Life Sciences (2023)
- Top 20 Most Influential Women in Biopharma, Endpoints News (2023)
- Fellow, Academy of the American Association for Cancer Research (2022)
- Member, National Academy of Medicine (2022)
- Nobility in Science Award, Sarcoma Foundation of American (2022)
- AACR-St. Baldrick's Foundation Award for Outstanding Achievement in Pediatric Cancer Research, American Association for Cancer Research (2021)
- AACR-Team Science Award for the Pediatric Cancer Dream Team, American Association for Cancer Research (2021)
- American Society for Clinical Oncology Pediatric Oncology Award and Lecture, American Society for Clinical Oncology (2021)
- Richard V. Smalley Award and Lectureship, Society for the Immunotherapy of Cancer (2021)
- BJ Kennedy Keynote Lecturer, Masonic Cancer Center, Minneapolis, MN (2018)
- Lila and Murray Gruber Memorial Cancer Research Award and Lectureship, American Academy of Dermatology (2018)
- Top 10 Clinical Research Award for New CAR-T Cell Therapy for Relapsed Leukemia, Top 10 Clinical Research Award (2018)
- Chair, Pediatric Cancer Working Group, American Association for Cancer Research (2017-18)

- Stephen Max Memorial Lectureship, University of Maryland (2017)
- Warren Stow Distinguished Lectureship, MD Anderson Cancer Center (2017)
- Nitschke-Kaskake Visiting Professorship, Oklahoma City Children's Hospital (2016)
- G. Burroughs Mider Lectureship, National Institutes of Health (2015)
- Member, Association of American Physicians (2015)
- William Hathaway Visiting Professor Award, University of Colorado (2015)
- Co-Leader, St.Baldrick's/StandUp2Cancer Pediatric Dream Team (2013-present)
- Alexandra Scott Lectureship in Pediatric Oncology, Children's Hospital of Philadelphia (2013)
- Director's Award, National Institutes of Health (2013)
- Great Teacher Lectureship, National Institutes of Health (2012)
- Vineberg Lectureship, Montreal Children's Hospital (2011)
- Alex Koufos Memorial Lectureship, Akron Children's Hospital (2009)
- Merit Award, National Institutes of Health (2007)
- Member, Best Doctors in America (2006-2018)
- Member, American Society for Clinical Investigation (2005)
- Distinguished Alumni Award, Northeastern Ohio Universities College of Medicine (2004)
- Commendation Medal, United States Public Health Service (2003)
- Director's Award, National Cancer Institute (2003)
- Distinguished Clinical Teacher Award, National Institutes of Health (2000)
- Member, Alpha Omega Alpha, Honorary Medical Society (1984)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board of Directors, American Association for Cancer Research (2025 - present)
- Board of Directors, ACCESSforKIDS (2025 - present)
- President, ACCESSforKIDS (2025 - present)
- Member, Board of Directors, Link Cell Therapies (2022 - 2025)
- Member, CARGO Therapeutics, Board of Directors (2021 - 2023)
- Chair, Pediatric Cancer Working Group, American Association for Cancer Research (2017 - 2019)
- Member, Committee on Scientific Affairs, American Society of Hematology (2016 - 2017)
- Chair-Elect, Pediatric Cancer Working Group, American Association for Cancer Research (2015 - 2017)
- Chair, Program Committee on Immunology, American Association for Cancer Research (2014 - 2015)
- Member, Immunology Steering Committee, American Association for Cancer Research (2013 - 2014)
- Vice Chair and Chair, Scientific Committee on Immunology and Host Defense, American Society of Hematology (2011 - 2012)
- Advisory Board for Clinical Research, NIH Clinical Center (2008 - 2012)
- Member, DNA Advisory Committee, US Food and Drug Administration (2008 - 2008)
- Education Committee, American Society of Clinical Oncology (2006 - 2009)
- Member, NIH Central Tenure Committee (2004 - 2008)
- Member, Biologic Response Modifiers Advisory Committee, Food and Drug Administration (2002 - 2003)
- Executive Board, Federation of Clinical Immunology Societies (FOCIS) (2001 - 2002)

PROFESSIONAL EDUCATION

- MD, Northeastern Ohio Universities College of Medicine , Medicine (1984)
- BS, University of Akron , Natural Sciences (1980)

PATENTS

- Rimas Orentas, Ira Pastan, Crystal Mackall. "United States Patent 61/549,516 Anti-CD22 Chimeric Antigen Receptors, patent pending", National Cancer Institute
- Rimas Orentas, Ira Pastan, Crystal Mackall, Dimiter Dimitrov. "United States Patent 61/717,960 M971 Chimeric Antigen Receptors, patent pending", National Cancer Institute
- Dimiter Dimitrov, Rimas Orentas, Crystal Mackall. "United States Patent 61/805001 Anti-CD276 polypeptides, proteins and chimeric antigen receptors, patent pending", National Cancer Institute
- Rimas Orentas, Dimiter Dimitrov, Crystal Mackall. "United States Patent 61/900,906 ALK Antibodies, Conjugates and Chimeric Antigen Receptors, patent pending", National Cancer Institute
- Terry Fry, Haiying Qin, Crystal Mackall, Rimas Orentas. "United States Patent 62/135,442 Dual Specific Anti-CD22-Anti-CD19-Chimeric Antigen Receptors, patent pending", National Cancer Institute
- Crystal Mackall, Yongzhi Cui. "United States Patent 62/216,447 Anti-CD276 Chimeric Antigen Receptors, patent pending", National Cancer Institute
- Jay Berzofsky, Lee Helman, Crystal Mackall. "United States Patent 7,867,977 A Peptide Epitope and Improvement Thereof Inducting T Cell Immunity to Alveolar Rhabdomyosarcoma in HLA-B7 positive Individuals.", National Cancer Institute
- Hokyung Kay Chung, Michael Z Lin, Crystal Mackall, Robbie Majzner, Louai Labanieh. "United States Patent 62/694,830 Chimeric Antigen Receptor Polypeptides and Methods of Using Same", Leland Stanford Junior University, Jul 16, 2018
- Crystal L Mackall, Michelle Monje, Christopher Mount, Robbie Majzner. "United States Patent 041839 CAR T cell therapy to treat H3K27M midline gliomas", Leland Stanford Junior University, Jul 12, 2018
- Tom Wandless, Rachel Lynn, Sanjay Malhotra, Evan Weber, Crystal Mackall. "United States Patent 025394 Transiently regulated CAR-T cells engineered to prevent T-cell exhaustion and improve immunotherapy", Leland Stanford Junior University, Mar 30, 2018
- Tom Wandless, Rachel Lynn, Sanjay Malhotra, Evan Weber, Crystal Mackall. "United States Patent PCT/US2018/025459 Methods of Treating T Cell Exhaustion by Inhibiting Modulating T Cell Receptor Signaling", Leland Stanford Junior University, Mar 30, 2018
- Rachel Lynn, Evan Weber, Crystal Mackall, Elena Sotillo. "United States Patent 62/599.299 Compositions and Methods for Inhibiting T Cell Exhaustion", Leland Stanford Junior University, Dec 15, 2017
- Jay Berzofsky, Lee Helman, Crystal Mackall. "United States Patent 12/092,449 Immunogenic Peptides And Methods Of Use For Treating And Preventing Cancer", National Cancer Institute, May 2, 2008

LINKS

- Mackall Lab: https://med.stanford.edu/mackalllab.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

We are impressed by the potency of immune responses for the treatment of cancer and our work focuses on enhancing the effectiveness of T cell based immunotherapies for cancer. Our approach is to simultaneously conduct basic studies alongside clinical trials, leveraging an iterative bench-to-bedside-bench rotation to efficiently optimize clinically relevant cancer immunotherapies. Our laboratory, in parallel with the Center for Cancer Cell Therapy seeks to develop novel therapies for early phase testing in clinical trials, and conducts intensive studies on clinical samples obtained from patients treated on immunotherapy trials. We also seek to enhance fundamental understanding of human T cell biology.

We focus primarily on using genetically engineered T cells to treat cancer, with an emphasis on chimeric antigen receptors (CARs). CARs are non-natural receptors, created using synthetic biology, that endow T cells with the capacity for antigen-specific, MHC-unrestricted killing. Some clinical results using CAR based therapies have been impressive, but we believe that further progress will emerge as a result of focus on these three major areas:

1. T cell exhaustion, a state whereby continued T cell activation leads to diminished functionality, is a fundamental barrier limiting the efficacy of many cancer immunotherapies. Our laboratory is focused on using high dimensional, single cell analyses to better define human T cell exhaustion and to enhance understanding of the biological mechanisms responsible for this phenomenon. We believe that enhanced biological understanding of T cell exhaustion will delivery novel approaches to prevent or reverse this phenomenon in the context of cancer immunotherapy.

2. Effective immunotherapies require a therapeutic window whereby immune cell preferentially or exclusively attack the neoplastic cell while sparing non-neoplastic, vital tissues. Our laboratory is focused on identifying novel targets for T cell based immunotherapies and on enhancing understanding of the quantitative thresholds for antigen recognition of these novel therapeutics. Armed with this understanding, we seek to tune CAR T cells to differential antigen thresholds to enable safe recognition orfcancer cells while sparing normal tissues. We are also interested in using novel approaches for combinatorial recognition, both to diminish the risk for tumor escape due to loss of antigen expression, and to allow targeting of tumor antigens that pose a risk due to co-expression on healthy, vital tissues.

3. The tumor microenvironment is potently immunosuppressive and can prevent antigen specific immune responses from effectively mediating antitumor effects. Our laboratory focuses on enhancing understanding of the immunosuppressive tumor microenvironment and on developing novel approaches to diminish the ability of the tumor microenvironment to limit the efficacy of T cell based immunotherapies.

CLINICAL TRIALS

- GPC2-CAR T Cell Therapy for Relapsed or Refractory Medulloblastoma in Children and Young Adults, Recruiting
- Phase I B7-H3 Chimeric Antigen Receptor T Cells (B7-H3CART) in Recurrent Glioblastoma Multiforme, Recruiting
- Phase I GD2 CAR T Cells for H3K27M-mutant Diffuse Midline Glioma (DMG), Recruiting
- Phase I/II Afamitresgene Autoleucel in Pediatric Subjects with MAGE-A4 Positive Tumors, Recruiting
- Expanded Access Axicabtagene Ciloleucel in Tx Relapsed/Refractory T-plant-Ineligible Aggressive NHL, Not Recruiting
- Phase I bb2121 in BCMA-Expressing Multiple Myeloma, Not Recruiting
- Phase I CD19/CD22 Chimeric Antigen Receptor T Cells in Peds Recurrent/Refractory B Cell Malignancies, Not Recruiting
- Phase I MGA271 in Pediatric B7-H3-Expressing Relapsed or Refractory Solid Tumors, Not Recruiting
- Phase I/Ib Autologous CD22 CAR T Cells in Adults w/ Recurrent or Refractory B Cell Malignancies, Not Recruiting
- Phase I/II Nivolumab in Recurrent /Refractory Solid Tumors as Single Agent & in Combo w/ Ipilimumab, Not Recruiting
- Phase Ib Autologous CD22 Chimeric Antigen Receptor TCells in Recurrent/Refractory BCell Malignancies, Not Recruiting
- PhaseI CD19/CD22 ChimericAntigenReceptor TCells+/-NKTR-255 in Recurrent/Refractory BCellMalignancies, Not Recruiting
- Screening for Tumor Antigen Expression Profiling & HLA Typing in Solid & Hematological Malignancies, Not Recruiting
- Phase I GeneticallyEngineered NY-ESO-1 Specific NY-ESO-1c259T in HLA-A2+ Patient w/ Synovial Sarcoma, Not Specified

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Sebastian Kenny, Bum Seok Lee

Doctoral Dissertation Reader (AC)

Lehi Acosta-Alvarez, Crystal Chen, Emma Heaton, Tim Keyes, Jaclyn Ng, Nick Phillips, Sarah Sackey

Postdoctoral Faculty Sponsor

Dehua Bi, Jeremy Bjelajac, Adria Canellas Socias, Yiyun Chen, Akram Hamed, Diren Usta, Bronte Manouk Verhoeven

Doctoral Dissertation Advisor (AC)

Kylie Burdsall, Audre May, Tara Murty

Doctoral Dissertation Co-Advisor (AC)

Quenton Bubb

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology (Phd Program)
- Pediatric Hem/Onc (Fellowship Program)

Publications

PUBLICATIONS

- **CAR T cells: the missing piece needed to improve outcomes for children with cancer?** *Journal for immunotherapy of cancer*
  Mackall, C.
  2026; 14 (1)
- **Clinical and Cytokine Features of Immune Effector Cell-Associated Hemophagocytic Lymphohistiocytosis-Like Syndrome.** *Blood cancer discovery*
  Srinagesh, H. K., Kramer, A. M., Baird, J. H., Reschke, A., Sahaf, B., Cancilla, J., Syal, S., Su, Y. J., Agarwal, N., Jensen, A. M., Schultz, L. M., Jeyakumar, N., Ramakrishna, et al
  2025
- **Pre-CAR next generation sequencing informs patient outcomes in children and young adults with B-acute lymphoblastic leukemia**
  Hamidi, R., Zhang, A., Handwerker, M., Bhatt, D., Davis, K., Ramakrishna, S., Aftandilian, C., Moon, J., Jacobs, A., DeYager, E., Erickson, C., Madhav, D., Dagher, et al
  ELSEVIER.2025: 550-551
- **CD22-CAR T cell multiomic features linked to patient outcomes in CD19-CAR resistant large B cell lymphoma**
  Kramer, A., Murty, T., Chen, Y., Rodrigues, K., Hamilton, M., Desai, M., Kuo, A., Ehlinger, Z., Reynolds, W., Srinagesh, H., Tsui, K., Rietberg, S., Mo, et al
  ELSEVIER.2025: 566-567
- **Double-dose axicabtagene ciloleucel (Axi-Cel-2) as second-line therapy for high-risk relapsed or refractory large B-cell lymphoma (r/rLBCL): Interim results from a Phase 1b study**
  Lee, D., Rodrigues, K., Rana, M., Kozy, K., Salazar, S., Jensen, A., Desai, M., Mallampet, J., Lohman, C., Huang, Y., Kang, X., Tian, F., Mutter, et al
  ELSEVIER.2025: 671-672
- **Enabling access to genetically modified cell therapies through flexible approaches to manufacturing and cost recovery.** *Journal for immunotherapy of cancer*
  Stewart, M. D., Cabanski, C. R., Allen, J. D., Connolly, J. E., Beneski, B. M., Dropulić, B., Feldman, S. A., Fleisher, L. A., Hanley, P. J., Hege, K., Kekre, N., Fernandez Lynch, H., Mackall, et al
  2025; 13 (12)
- **Long-term Follow-up of Gastrointestinal CAR T-cell Lymphoma: Homing, Clonal Expansion, and Response to Cyclosporine.** *Blood*
  Hosoya, H., Bastidas Torres, A. N., Fernandez-Pol, S., Gubatan, J. M., Najidh, S., Duran, G. E., Dong, F., Ehlinger, Z., Lohman, C., Wright, C., Sahaf, B., Mackall, C. L., Miklos, et al
  2025
- **Superior efficacy and persistence of Orca-T-allogeneic CAR19/22 versus autologous CAR19/22 in high-risk adult B-ALL**
  Molina, A., Shiraz, P., Kanegai, A., Fraser, A., Kordek, D., Wagner, C., Srinagesh, H., Danley, L., Ramakrishnan, A., Daghagh, H., Huang, Y., Dhapola, G., Siddiqui, et al
  ELSEVIER.2025: 514-515
- **Redefining post-CD19 CAR T-cell surveillance with ctdna: Real-world insights from post- axi-cel and liso-cel therapy**
  Ananth, S., Mallampet, J., Chang, B., Agarwal, N., Kong, K., Sahaf, B., Serrato, J., Kirsch, I., Jacob, A., Simmons, H., Lee, L., Mackall, C., Weng, et al

ELSEVIER.2025: 941-942

- **Transcriptomic Diversity of Pediatric Acute Myeloid Leukemia Genetic Drivers Correlates With Clinical Outcome and Expression of Stemness-Related Genes.** *Cancer medicine*
  Bubb, Q. R., Sotillo, E., Richards, R. M., Mackall, C. L., Gruber, T. A., Czechowicz, A.
  2025; 14 (21): e71325

- **EVALUATION OF B7-H3 IMMUNOHISTOCHEMISTRY IN HIGH-GRADE GLIOMAS FOR CHIMERIC ANTIGEN RECEPTOR T-CELL PREDICTIVE TESTING**
  Dyson, K., Zuraski, C., Solomon, D., Li, G., Stocksdale, B., Song, K., Mahdi, J., Tanner, K., Bertrand, S., Iv, M., Threlkeld, Z., Ramakrishna, S., Sahaf, et al
  OXFORD UNIV PRESS INC.2025: v49-v50

- **HUMANIZED ANTI-CAR ANTIBODIES AFFECT DURABLE RESPONSE TO GD2-CAR T-CELLS IN DIFFUSE MIDLINE GLIOMA**
  Chen, Y., Song, K., Huang, Y., Iswari, N., Desai, M., Ehlinger, Z., Daghagh, H., Reynolds, K., Mahdi, J., Majzner, R., Richards, B., Kamens, J., Barsan, et al
  OXFORD UNIV PRESS INC.2025: v114

- **SINGLE-CELL LANDSCAPE OF B7H3-CAR T THERAPY IN GLIOMA: MECHANISMS OF RESISTANCE AND SIGNATURES OF LONG-TERM RESPONSE**
  Chen, Y., Song, K., Desai, M., Ehlinger, Z., Daghagh, H., Rietberg, S., Feeney, A., Tanner, K., Dyson, K., Stockdale, B., Dhapola, G., Lohman, C., Patil, et al
  OXFORD UNIV PRESS INC.2025: v13

- **Quantitative surfaceome profiling of high-risk medulloblastoma prioritizes the oncofetal antigen GPC2 for potent CAR-T cell therapy**
  Usta, D., Gwynne, W., Suk, Y., Chen, Y., Radosevic, M. T., Chernova, D., Delaidelli, A., Feng, Y., Nasajpour, E., Trissal, M. C., Poetschke, R. D., Dunham, C., Labanie, et al
  OXFORD UNIV PRESS INC.2025: v373

- **CAR19 therapy drives expansion of clonal hematopoiesis and associated cytopenias.** *Research square*
  Hamilton, M. P., Phillips, N., Noordenbos, T., Boegeholz, J., Sugio, T., Sworder, B. J., Alig, S. K., Good, Z., Schroers-Martin, J. G., Tamaresis, J., Esfahani, M. S., Lu, Y., Olsen, et al
  2025

- **Outcomes following CD22 CAR T-cells in B-ALL: a tale of two manufacturing strategies.** *Cytotherapy*
  Dreyzin, A., Kramer, A. M., Yates, B., Wang, H. W., Sahaf, B., Yuan, C., Klysz, D., Tunuguntla, R., Ehlinger, Z., Reitberg, S., Adebola, S., Su, A., Ebina-Shibuya, et al
  2025: 101990

- **Liberalizing Hospital Proximity Requirements for Children/Young Adults with Low Burden B-ALL Receiving Tisagenlecleucel.** *Blood advances*
  Appell, L. E., Baggott, C., Nguyen, K., Prabhu, S., Pacenta, H. L., John, S., Fabrizio, V. A., Phillips, C. L., Rossoff, J., Talano, J. M., Moskop, A., Phelan, R., Baumeister, et al
  2025

- **A Phase I, Open-Label, Dose Escalation Study of Enoblituzumab in Children and Young Adults with B7-H3-Expressing Relapsed or Refractory Solid Tumors.** *Cancer research communications*
  DeSantes, K. B., McDowell, K. A., Sondel, P. M., Hutson, P. R., Kaplan, R. N., Park, J. R., Hegde, M. G., Mackall, C. L., Maris, J. M.
  2025

- **Zelig Eshhar (1941-2025): a tribute for a life for immunotherapy** *JOURNAL FOR IMMUNOTHERAPY OF CANCER*
  Abken, H., Allison, J. P., Brentjens, R., June, C. H., Lotze, M. T., Mackall, C., Majzner, R. G., Rosenberg, S. A., Sadelain, M., Smith, E., Maus, M.
  2025; 13 (8)

- **Characterization and prediction of hematotoxicity in pediatric patients receiving tisagenlecuecel.** *Blood advances*
  Naik, S., Selukar, S., Talleur, A. C., Deshpande, S., Llaurador Caraballo, G., Fabrizio, V. A., Rouce, R. H., Zeng, X. L., Vatsayan, A., Rossoff, J., Pacenta, H. L., John, S., Phillips, et al
  2025

- **Napsin A-specific T-cell clonotypes are associated with improved clinical outcomes in patients receiving checkpoint immunotherapy for metastatic non-small cell lung cancer.** *Journal for immunotherapy of cancer*

Miller, N. J., Baik, C., Neal, J. W., Sun, F., Santana-Davila, R., Lee, S., Eaton, K. D., Martins, R. G., Rodriguez, C., Wakelee, H., Padda, S. K., Sotillo, E., Konnick, et al

2025; 13 (7)

- **CSF1R+ myeloid-monocytic cells drive CAR-T cell resistance in aggressive B cell lymphoma.** *Cancer cell*

  Stahl, D., Gödel, P., Balke-Want, H., Gholamipoorfard, R., Segbers, P., Tetenborg, L., Koker, M., Dörr, J., Gregor, L., Bachurski, D., Rose, F., Simon, A. G., Good, et al

  2025

- **Intentional heterogeneity in autologous cell-based gene therapies: strategic considerations for first-in-human trials.** *Journal for immunotherapy of cancer*

  Cabanski, C. R., Yang, E., Stewart, M. D., Allen, J. D., Connolly, J. E., Dugan, U., Greenberg, P. D., Mackall, C. L., June, C. H., Marson, A., Maus, M. V., Ribas, A.

  2025; 13 (6)

- **A phase 1 study of B7H3 CAR-T cells administered intracranially in recurrent glioblastoma.**

  Li, G., Stocksdale, B. R., Song, K., Mahdi, J., Tanner, K., Bertrand, S., Iv, M., Threlkeld, Z., Ramakrishna, S., Sahaf, B., Egeler, E., Charu, V., Tunuguntla, et al

  LIPPINCOTT WILLIAMS & WILKINS.2025: 2018

- **Immunotherapy-related cognitive impairment after CAR T cell therapy in mice.** *Cell*

  Geraghty, A. C., Acosta-Alvarez, L., Rotiroti, M. C., Dutton, S., O'Dea, M. R., Kim, W., Trivedi, V., Mancusi, R., Shamardani, K., Malacon, K., Woo, P. J., Martinez-Velez, N., Pham, et al

  2025

- **STASH-Select: a platform for multi-vector engineering and single-step selection of cell therapies bearing multiple enhancements**

  Labanieh, L., Pacheco, K., Arenas, M., Fisher, C., Arredondo-Guerrero, J., Yamada-Hunter, S., Xu, P., Bjelajac, J., Sotillo, E., Majzner, R., Cochran, J., Mackall, C.

  CELL PRESS.2025

- **IKAROS levels are associated with antigen escape in CD19- and CD22-targeted therapies for B-cell malignancies.** *Nature communications*

  Domizi, P., Sarno, J., Jager, A., Merchant, M., Pacheco, K. Z., Yamada-Hunter, S. A., Rotiroti, M. C., Liu, Y., Baskar, R., Reynolds, W. D., Sworder, B. J., Sahaf, B., Bendall, et al

  2025; 16 (1): 3800

- **New models for the development of and access to CAR T-cell therapies for children and adolescents with cancer: an ACCELERATE multistakeholder analysis.** *The Lancet. Oncology*

  Pearson, A. D., Rossig, C., Mackall, C. L., Shah, N. N., Baruchel, A., Daems, S., Anderson, J., Biondi, A., Bird, N., Bodmer, N., Brivio, E., Buechner, J., Calkoen, et al

  2025; 26 (4): e214-e224

- **Development of multivalent CAR T cells as dual immunotherapy and conditioning agents** *MOLECULAR THERAPY ONCOLOGY*

  Bubb, Q., Balood, M., Seir, G., Swartzrock, L., Haslett, E., Ho, K., Xu, P., Wiltz, S. G., Sotillo, E., Gruber, T. A., Richards, R. M., Mackall, C. L., Czechowicz, et al

  2025; 33 (1)

- **Development of multivalent CAR T cells as dual immunotherapy and conditioning agents.** *Molecular therapy. Oncology*

  Bubb, Q. R., Balood, M., Seir, G. E., Swartzrock, L., Haslett, E., Ho, K., Xu, P., Wiltz, S. G., Sotillo, E., Gruber, T. A., Richards, R. M., Mackall, C. L., Czechowicz, et al

  2025; 33 (1): 200944

- **The road to CAR-T-cell therapy for lethal childhood brain tumours** *NATURE*

  Monje, M., Mackall, C.

  2025

- **Effects of an initial anti-CD19 CAR T-cell therapy on subsequent anti-CD22 CAR T-cell manufacturing and clinical outcomes in patients with r/r LBCL.** *Cancer discovery*

  Su, Y. J., Kramer, A. M., Hamilton, M. P., Agarwal, N., Srinagesh, H. K., Baird, J. H., Sahaf, B., Kuo, A., Ehlinger, Z. J., Desai, M. H., Rietberg, S. P., Tunuguntla, R., Patel, et al

  2025

- **Tumor-Associated Microglia Secrete Extracellular ATP to Support Glioblastoma Progression.** *Cancer research*

Wu, C. Y., Chen, Y., Lin, Y. J., Wei, K. C., Chang, K. Y., Feng, L. Y., Chen, K. T., Li, G., Ren, A. L., Nitta, R. T., Wu, J. Y., Cho, K. B., Pant, et al
2024; 84 (23): 4017-4030

- **Author Correction: Intravenous and intracranial GD2-CAR T cells for H3K27M+ diffuse midline gliomas.** *Nature*
  Monje, M., Mahdi, J., Majzner, R., Yeom, K. W., Schultz, L. M., Richards, R. M., Barsan, V., Song, K. W., Kamens, J., Baggott, C., Kunicki, M., Rietberg, S. P., Lim, et al
  2024

- **Intravenous and intracranial GD2-CAR T cells for H3K27M+ diffuse midline gliomas.** *Nature*
  Monje, M., Mahdi, J., Majzner, R., Yeom, K. W., Schultz, L. M., Richards, R. M., Barsan, V., Song, K. W., Kamens, J., Baggott, C., Kunicki, M., Rietberg, S. P., Lim, et al
  2024

- **SPATIAL TRANSCRIPTOMICS ANALYSIS OF GLIOBLASTOMA REVEALS THREE DISTINCT REGIONAL PROGRAMS OF T-CELL INFILTRATION**
  Wang, W. L., Chen, Y., Mo, C., Good, Z., Sotillo, E., Mackall, C. L.
  OXFORD UNIV PRESS INC.2024

- **MYELOID POPULATIONS MODULATE GD2 CAR T CELL ACTIVITY IN DIFFUSE MIDLINE GLIOMA**
  Ramakrishna, S., Geraghty, A., Good, Z., Desai, M., Mancusi, R., Mahdi, J., Song, K., Ehlinger, Z., Chen, Y., Hamilton, M., Rietberg, S., Majzner, R., Schultz, et al
  OXFORD UNIV PRESS INC.2024

- **Role of B Cell Recovery in Relapse Risk and CD19 Phenotype Following Real-World Use of Tisagenlecleucel for Pediatric B-Acute Lymphoblastic Leukemia: A Multi-Institutional Retrospective Study**
  Zeng, X., Kwon, S., Vatsayan, A., Baggott, C., Prabhu, S., John, S., Pacenta, H. L., Phillips, C. L., Rossoff, J., Talano, J., Moskop, A., Verneris, M. R., Myers, et al
  ELSEVIER.2024: 2817-2819

- **CD22-Directed CAR T-Cell Therapy Achieves Complete Remission in CD19-Directed CAR T-Cell Refractory Follicular and Mantle Cell Lymphoma**
  Kramer, A., Srinagesh, H., Su, Y., Hamilton, M. P., Levine, K., Migliore, E., Denoble, K., Brown, A. K., Cunanan, K., Agarwal, N., Lohman, C., Mavroukakis, S., Bharadwaj, et al
  ELSEVIER.2024: 2064-2066

- **Safe and Effective Combination of Donor-Derived, Allogeneic CD19/CD22-CAR T Cells with Myeloablative Graft-Engineered Allo-HCT for High-Risk B-ALL**
  Muffly, L., Ananth, S., Danley, L., Wagner, C., Kordek, D., Denoble, K., Fraser, A., Egeler, E., Molina, A., Ehlinger, Z., Desai, M., Daghagh, H., Tunuguntla, et al
  ELSEVIER.2024: 680

- **CD38-Specific but Not CDI9-Specific CART Cells Exert Anti-Tumor Activity in Models of Primary Effusion Lymphoma (PEL)**
  Wang, S., Stammler, R., Richards, R. M., Sotillo, E., Pradier, A., Melotti, A., Bertoni, F., Mackall, C. L., Boutboul, D., Simonetta, F.
  ELSEVIER.2024: 7162-7163

- **Targeting Lymphoma Associated Myeloid-Monocytic Cells through CSF1R Blockade Enhances CAR-T Cell Response in Aggressive B Cell Lymphoma**
  Stahl, D., Godel, P., Balke-Want, H., Segbers, P., Tetenborg, L., Gholamipoorfard, R., Bachurski, D., Rose, F., Good, Z., Simon, A. G., Nill, M., Fluemann, R., Riet, et al
  ELSEVIER.2024: 367-368

- **CD22-Directed CAR T Cell Single Cell Multiomic Features Associated with Immune Effector Cell-Associated Hemophagocytic Lymphohistiocytosis-like Syndrome (IEC-HS)**
  Kramer, A., Murty, T., Chen, Y., Srinagesh, H., Hamilton, M. P., Mo, K. C., Prabhu, S., Desai, M., Kuo, A., Ehlinger, Z., Reynolds, W. D., Baird, J. H., Su, et al
  ELSEVIER.2024: 911-912

- **Anti-BCMA CAR T-Cell Expansion and Its Association with Response and Toxicity in Multiple Myeloma**
  Hosoya, H., Jensen, A., Hovanky, V., Homsy, S., Cancilla, J. E., Patil, S., Kennedy, V. E., Bharadwaj, S., Smith, M., Shiraz, P., Frank, M. J., Dahiya, S., Arai, et al
  ELSEVIER.2024: 2006-2007

- **CD22-Directed CAR T-Cell Therapy for Large B-Cell Lymphomas Progressing after CD19-Directed CAR T-Cell Therapy: Continued Durable Remissions at 3-Year Follow-up**
  Kramer, A., Baird, J. H., Srinagesh, H., Egeler, E., Levine, K., Brown, A. K., Mavroukakis, S., Cunanan, K., Su, Y., Agarwal, N., Hamilton, M. P., Bharadwaj, S., Arai, et al
  ELSEVIER.2024: 70-71

- **Single Institution Analysis of Lymphoma Treatment Related Post-CAR Myeloid Neoplasms**
  Hamilton, M., Phillips, N., Lee, D., Ehlinger, Z., Kramer, A., Srinagesh, H., Good, Z., Kang, X., Olsen, M., Liu, C., Tian, F., Sworder, B. J., Hosoya, et al
  ELSEVIER.2024: 96-97

- **Indolent CD8+CAR T-Cell Lymphoma of the Gastrointestinal Tract after Ciltacabtagene Autoleucel Therapy for Relapsed/Refractory Multiple Myeloma**
  Hosoya, H., Fernandez-Pol, S., Gubatan, J., Ehlinger, Z., Lohman, C., Torres, A., Najidh, S., Kwang, A., Duran, G., Wright, C., Kennedy, V. E., Bharadwaj, S., Smith, et al
  ELSEVIER.2024: 4846-4847

- **GLUT1 overexpression in CAR-T cells induces metabolic reprogramming and enhances potency.** *Nature communications*
  Guerrero, J. A., Klysz, D. D., Chen, Y., Malipatlolla, M., Lone, J., Fowler, C., Stuani, L., May, A., Bashti, M., Xu, P., Huang, J., Michael, B., Contrepois, et al
  2024; 15 (1): 8658

- **An engineered NKp46 antibody for construction of multi-specific NK cell engagers.** *Protein engineering, design & selection : PEDS*
  Lee, R. B., Maddineni, S., Landry, M., Diaz, C., Tashfeen, A., Yamada-Hunter, S. A., Mackall, C. L., Beinat, C., Sunwoo, J. B., Cochran, J. R.
  2024

- **The CCR6-CCL20 axis promotes regulatory T cell glycolysis and immunosuppression in tumors.** *Cancer immunology research*
  Pant, A., Jain, A., Chen, Y., Patel, K., Saleh, L., Tzeng, S., Nitta, R. T., Zhao, L., Wu, C. Y., Bederson, M., Wang, W. L., Bergsneider, B. H., Choi, et al
  2024

- **The cytokine Meteorin-like inhibits anti-tumor CD8+ T cell responses by disrupting mitochondrial function.** *Immunity*
  Jackson, C. M., Pant, A., Dinalankara, W., Choi, J., Jain, A., Nitta, R., Yazigi, E., Saleh, L., Zhao, L., Nirschl, T. R., Kochel, C. M., Hwa-Lin Bergsneider, B., Routkevitch, et al
  2024

- **PRC2-AgeIndex as a universal biomarker of aging and rejuvenation.** *Nature communications*
  Moqri, M., Cipriano, A., Simpson, D. J., Rasouli, S., Murty, T., de Jong, T. A., Nachun, D., de Sena Brandine, G., Ying, K., Tarkhov, A., Aberg, K. A., van den Oord, E., Zhou, et al
  2024; 15 (1): 5956

- **CD22-directed CAR T-cell therapy for large B-cell lymphomas progressing after CD19-directed CAR T-cell therapy: a dose-finding phase 1 study.** *Lancet (London, England)*
  Frank, M. J., Baird, J. H., Kramer, A. M., Srinagesh, H. K., Patel, S., Brown, A. K., Oak, J. S., Younes, S. F., Natkunam, Y., Hamilton, M. P., Su, Y. J., Agarwal, N., Chinnasamy, et al
  2024

- **A Phase 1 Clinical Trial of NKTR-255 with CD19-22 CAR-T Cell Therapy for Refractory B-cell Acute Lymphoblastic Leukemia.** *Blood*
  Srinagesh, H. K., Jackson, C., Shiraz, P., Jeyakumar, N., Hamilton, M. P., Egeler, E., Mavroukakis, S., Kuo, A., Cancilla, J., Sahaf, B., Agarwal, N., Kanegai, A. M., Kramer, et al
  2024

- **Bendamustine is a safe and effective lymphodepletion agent for axicabtagene ciloleucel in patients with refractory or relapsed large B-cell lymphoma.** *Journal for immunotherapy of cancer*
  Bharadwaj, S., Lau, E., Hamilton, M. P., Goyal, A., Srinagesh, H., Jensen, A., Lee, D., Mallampet, J., Elkordy, S., Syal, S., Patil, S., Latchford, T., Sahaf, et al
  2024; 12 (7)

- **SEQUENTIAL INTRAVENOUS AND INTRACEREBROVENTRICULAR GD2-CAR T-CELL THERAPY FOR H3K27M-MUTATED DIFFUSE MIDLINE GLIOMAS**
  Monje, M., Mahdi, J., Majzner, R. G., Yeom, K., Schultz, L. M., Richards, R., Barsan, V., Song, K., Kamens, J., Baggott, C., Kunicki, M., Lim, A., Reschke, et al

OXFORD UNIV PRESS INC.2024

- **TUMOR INFLAMMATION-ASSOCIATED NEUROTOXICITY (TIAN): A TOXICITY SYNDROME IN PATIENTS TREATED WITH IMMUNOTHERAPY FOR CENTRAL NERVOUS SYSTEM TUMORS**
  Mahdi, J., Dietrich, J., Straathof, K., Roddie, C., Scott, B. J., Davidson, T., Prolo, L., Batchelor, T. T., Campen, C. J., Davis, K. L., Gust, J., Lim, M., Majzner, et al
  OXFORD UNIV PRESS INC.2024

- **Enhancing pediatric access to cell and gene therapies.** *Nature medicine*
  Mackall, C. L., Bollard, C. M., Goodman, N., Carr, C., Gardner, R., Rouce, R., Sotillo, E., Stoner, R., Urnov, F. D., Wayne, A. S., Park, J., Kohn, D. B.
  2024

- **Risk of Second Tumors and T-Cell Lymphoma after CAR T-Cell Therapy.** *The New England journal of medicine*
  Hamilton, M. P., Sugio, T., Noordenbos, T., Shi, S., Bulterys, P. L., Liu, C. L., Kang, X., Olsen, M. N., Good, Z., Dahiya, S., Frank, M. J., Sahaf, B., Mackall, et al
  2024; 390 (22): 2047-2060

- **Advancing childhood cancer research through young investigator and advocate collaboration.** *Pediatric blood & cancer*
  Weiner, A. K., Palmer, A., Moll, M. F., Lindberg, G., Reidy, K., Diskin, S. J., Mackall, C. L., Maris, J. M., Sullivan, P. J.
  2024: e31127

- **Engineered CD47 protects T cells for enhanced antitumour immunity.** *Nature*
  Yamada-Hunter, S. A., Theruvath, J., McIntosh, B. J., Freitas, K. A., Lin, F., Radosevich, M. T., Leruste, A., Dhingra, S., Martinez-Velez, N., Xu, P., Huang, J., Delaidelli, A., Desai, et al
  2024

- **Targeting TGFbeta-activated kinase-1 activation in microglia reduces CAR T immune effector cell-associated neurotoxicity syndrome.** *Nature cancer*
  Vinnakota, J. M., Biavasco, F., Schwabenland, M., Chhatbar, C., Adams, R. C., Erny, D., Duquesne, S., El Khawanky, N., Schmidt, D., Fetsch, V., Zahringer, A., Salie, H., Athanassopoulos, et al
  2024

- **Publisher Correction: FOXO1 is a master regulator of memory programming in CAR T cells.** *Nature*
  Doan, A. E., Mueller, K. P., Chen, A. Y., Rouin, G. T., Chen, Y., Daniel, B., Lattin, J., Markovska, M., Mozarsky, B., Arias-Umana, J., Hapke, R., Jung, I. Y., Wang, et al
  2024

- **Development of Extracellularly Linked Concatemeric Trivalent Cytokine (ELeCTriC) Chimeric Antigen Receptor (CAR) T-Cells as Dual Conditioning and Immunotherapeutic Agents**
  Bubb, Q. R., Balood, M., Seir, G. E., Swartzrock, L., Haslett, E., Ho, K., Wiltz, S. G., Sotillo, E., Richards, R. M., Gruber, T. A., Mackall, C. L., Czechowicz, A.
  CELL PRESS.2024: 75

- **FOXO1 is a master regulator of memory programming in CAR T cells.** *Nature*
  Doan, A. E., Mueller, K. P., Chen, A. Y., Rouin, G. T., Chen, Y., Daniel, B., Lattin, J., Markovska, M., Mozarsky, B., Arias-Umana, J., Hapke, R., Jung, I. Y., Wang, et al
  2024

- **INSPIRED Symposium Part 5: Expanding the Use of CAR T cells in Children and Young Adults.** *Transplantation and cellular therapy*
  Talleur, A. C., Fabrizio, V. A., Aplenc, R., Grupp, S. A., Mackall, C., Majzner, R., Nguyen, R., Rouce, R., Moskop, A., McNerney, K. O.
  2024

- **Directed evolution of genetically encoded LYTACs for cell-mediated delivery.** *Proceedings of the National Academy of Sciences of the United States of America*
  Yang, J. L., Yamada-Hunter, S. A., Labanieh, L., Sotillo, E., Cheah, J. S., Roberts, D. S., Mackall, C. L., Bertozzi, C. R., Ting, A. Y.
  2024; 121 (13): e2320053121

- **CAR19 monitoring by peripheral blood immunophenotyping reveals histology-specific expansion and toxicity.** *Blood advances*
  Hamilton, M. P., Craig, E., Gentille Sanchez, C., Mina, A., Tamaresis, J., Kirmani, N., Ehlinger, Z., Syal, S., Good, Z., Sworder, B., Schroers-Martin, J., Lu, Y., Muffly, et al
  2024

- **CD22 CAR T cells demonstrate high response rates and safety in pediatric and adult B-ALL: Phase 1b results.** *Leukemia*
  Schultz, L. M., Jeyakumar, N., Kramer, A. M., Sahaf, B., Srinagesh, H., Shiraz, P., Agarwal, N., Hamilton, M., Erickson, C., Jacobs, A., Moon, J., Baggott, C., Arai, et al
  2024

- **A versatile CRISPR-Cas13d platform for multiplexed transcriptomic regulation and metabolic engineering in primary human T cells.** *Cell*
  Tieu, V., Sotillo, E., Bjelajac, J. R., Chen, C., Malipatlolla, M., Guerrero, J. A., Xu, P., Quinn, P. J., Fisher, C., Klysz, D., Mackall, C. L., Qi, L. S.
  2024

- **Inosine induces stemness features in CAR-T cells and enhances potency.** *Cancer cell*
  Klysz, D. D., Fowler, C., Malipatlolla, M., Stuani, L., Freitas, K. A., Chen, Y., Meier, S., Daniel, B., Sandor, K., Xu, P., Huang, J., Labanieh, L., Keerthi, et al
  2024

- **Unanswered questions following reports of secondary malignancies after CAR-T cell therapy.** *Nature medicine*
  Levine, B. L., Pasquini, M. C., Connolly, J. E., Porter, D. L., Gustafson, M. P., Boelens, J. J., Horwitz, E. M., Grupp, S. A., Maus, M. V., Locke, F. L., Ciceri, F., Ruggeri, A., Snowden, et al
  2024

- **CCL8/CCL13-producing tumor-associated macrophages linked to poor outcomes after CAR T cell therapy for LBCL** *American Society of Hematology*
  Mo, K. C., Yeh, C. Y., Hamilton, M. P., Spiegel, J., Desai, M., Ehlinger, Z., Reynolds, W. D., Yang, E., Ozawa, M. G., Chen, Y., Prabhu, S., Frank, M. J., Muffly, et al
  2024

- **Immune determinants of CAR-T cell expansion in solid tumor patients receiving GD2 CAR-T cell therapy.** *Cancer cell*
  Kaczanowska, S., Murty, T., Alimadadi, A., Contreras, C. F., Duault, C., Subrahmanyam, P. B., Reynolds, W., Gutierrez, N. A., Baskar, R., Wu, C. J., Michor, F., Altreuter, J., Liu, et al
  2023

- **Directed Evolution of Genetically Encoded LYTACs for Cell-Mediated Delivery.** *bioRxiv : the preprint server for biology*
  Yang, J. L., Yamada-Hunter, S. A., Labanieh, L., Sotillo, E., Cheah, J. S., Roberts, D. S., Mackall, C. L., Ting, A. Y., Bertozzi, C. R.
  2023

- **Antigen density quantification of cell-surface immunotherapy targets by flow cytometry: Multi-antigen assay of neuroblastoma bone marrow metastasis.** *STAR protocols*
  Radosevich, M. T., Bornheimer, S. J., Mehrpouryan, M., Sahaf, B., Oak, J. S., Mackall, C. L., Heitzeneder, S.
  2023; 4 (4): 102709

- **FOXO1 is a master regulator of CAR T memory programming.** *Research square*
  Doan, A., Mueller, K. P., Chen, A., Rouin, G. T., Daniel, B., Lattin, J., Chen, Y., Mozarsky, B., Markovska, M., Arias-Umana, J., Hapke, R., Jung, I., Xu, et al
  2023

- **CAR19 Therapy Drives Expansion of Clonal Hematopoiesis and Associated Cytopenias**
  Hamilton, M. P., Sworder, B. J., Alig, S. K., Good, Z., Boegeholz, J., Schroers-Martin, J., Tamaresis, J., Esfahani, M., Lu, Y., Olsen, M., Liu, C., Ehlinger, Z., Desai, et al
  AMER SOC HEMATOLOGY.2023

- **Immune-Effector-Cell- Associated-Neurotoxicity-Syndrome (ICANS) Pathophysiology Is Mediated By Microglia TGF-β-Activated Kinase-1 Signaling**
  Vinnakota, J., Biavasco, F., Schwabenland, M., Chhatbar, C., Adams, R. C., Erny, D., Duquesne, S., El Khawanky, N., Salie, H., Athanassopoulos, D., Braun, L., Schmidt, D., Fetsch, et al
  AMER SOC HEMATOLOGY.2023

- **Establishing Costs for Commercial Chimeric Antigen Receptor T-Cell (Tisagenlecleucel; Kymriah) in Children and Young Adult B-Cell Acute Lymphoblastic Leukemia; A Merged Analysis from the Prwcc and PHIS**
  Satwani, P., Chao, K., Lopez-Garcia, M., Hall, M., Jin, Z., Winestone, L. E., Friedman, D., Phelan, R., Baggott, C., John, S., Pacenta, H. L., Laetsch, T. W., Phillips, et al
  AMER SOC HEMATOLOGY.2023

- **Risk Factors and Outcomes for Hematotoxicity Following Tisagenlecleucel for Pediatric BAcute Lymphoblastic Leukemia**
  McNerney, K. O., Fabrizio, V. A., Talleur, A. C., Lim, S., Dreyzin, A., Baggott, C., Vatsayan, A., Rossoff, J., Prabhu, S., Pacenta, H. L., Phillips, C. L., Talano, J., Moskop, et al
  AMER SOC HEMATOLOGY.2023

- **CD22 CAR T Cell-Related IEC-HS Is Associated with an IFN-. Cytokine Signature**
  Srinagesh, H., Baird, J. H., Agarwal, N., Su, Y., Kramer, A., Reschke, A., Jeyakumar, N., Bharadwaj, S., Schultz, L., Ramakrishna, S., Davis, K. L., Sahaf, B., Feldman, et al
  AMER SOC HEMATOLOGY.2023

- **Manufacturing of a Subsequent Autologous CAR-T Product after Prior CAR-T Is Safe and Feasible**
  Su, Y., Kramer, A., Hamilton, M. P., Agarwal, N., Feldman, S., Sahaf, B., Kuo, A., Mackall, C. L., Muffly, L. S., Miklos, D. B., Frank, M. J.
  AMER SOC HEMATOLOGY.2023

- **Transcriptional Profiling Associated with CD22 CAR T Cell Clinical Response in LBCL**
  Kramer, A., Hamilton, M. P., Prabhu, S., Desai, M., Kuo, A., Ehlinger, Z., Agarwal, N., Su, Y., Gkitsas, N., Fowler, C., Keerthi, V., Retherford, A., Klysz, et al
  AMER SOC HEMATOLOGY.2023

- **Tisagenlecleucel utilisation and outcomes across refractory, first relapse and multiply relapsed B-cell acute lymphoblastic leukemia: a retrospective analysis of real-world patterns.** *EClinicalMedicine*
  Barsan, V., Li, Y., Prabhu, S., Baggott, C., Nguyen, K., Pacenta, H., Phillips, C. L., Rossoff, J., Stefanski, H., Talano, J. A., Moskop, A., Baumeister, S., Verneris, et al
  2023; 65: 102268

- **MITOCHONDRIAL ATP BIOGENESIS REGULATED BY VDAC1 IN TMEM119+TUMOR-ASSOCIATED MICROGLIA AND MACROPHAGES MEDIATES HIGH-GRADE GLIOMA GROWTH**
  Wu, C., Chen, Y., Lin, Y., Wei, K., Chang, K., Feng, L., Wu, A., Chen, K., Ren, A., Nitta, R., Wu, J., Pant, A., Cho, et al
  OXFORD UNIV PRESS INC.2023

- **Preclinical development of a chimeric antigen receptor T cell therapy targeting FGFR4 in rhabdomyosarcoma.** *Cell reports. Medicine*
  Tian, M., Wei, J. S., Shivaprasad, N., Highfill, S. L., Gryder, B. E., Milewski, D., Brown, G. T., Moses, L., Song, H., Wu, J. T., Azorsa, P., Kumar, J., Schneider, et al
  2023: 101212

- **Homology-independent targeted insertion (HITI) enables guided CAR knock-in and efficient clinical scale CAR-T cell manufacturing.** *Molecular cancer*
  Balke-Want, H., Keerthi, V., Gkitsas, N., Mancini, A. G., Kurgan, G. L., Fowler, C., Xu, P., Liu, X., Asano, K., Patel, S., Fisher, C. J., Brown, A. K., Tunuguntla, et al
  2023; 22 (1): 100

- **Author Correction: CAR immune cells: design principles, resistance and the next generation.** *Nature*
  Labanieh, L., Mackall, C. L.
  2023

- **The future of CAR T-cell therapy for B-cell acute lymphoblastic leukemia in pediatrics and adolescents.** *Expert opinion on biological therapy*
  Schultz, L., Mackall, C. L.
  2023

- **TUMOR INFLAMMATION-ASSOCIATED NEUROTOXICITY (TIAN): A TOXICITY SYNDROME IN PATIENTS TREATED WITH IMMUNOTHERAPY FOR CENTRAL NERVOUS SYSTEM TUMORS**
  Mahdi, J., Dietrich, J., Straathof, K., Roddie, C., Scott, B., Davidson, T., Prolo, L., Batchelor, T., Campen, C., Davis, K., Gust, J., Lim, M., Majzner, et al
  OXFORD UNIV PRESS INC.2023

- **Inosine Induces Stemness Features in CAR T cells and Enhances Potency.** *bioRxiv : the preprint server for biology*
  Klysz, D. D., Fowler, C., Malipatlolla, M., Stuani, L., Freitas, K. A., Meier, S., Daniel, B., Sandor, K., Xu, P., Huang, J., Labanieh, L., Leruste, A., Bashti, et al
  2023

- **Tumor inflammation-associated neurotoxicity.** *Nature medicine*

Mahdi, J., Dietrich, J., Straathof, K., Roddie, C., Scott, B. J., Davidson, T. B., Prolo, L. M., Batchelor, T. T., Campen, C. J., Davis, K. L., Gust, J., Lim, M., Majzner, et al

2023

- **Tonic-signaling chimeric antigen receptors drive human regulatory T cell exhaustion.** *Proceedings of the National Academy of Sciences of the United States of America*

  Lamarche, C., Ward-Hartstonge, K., Mi, T., Lin, D. T., Huang, Q., Brown, A., Edwards, K., Novakovsky, G. E., Qi, C. N., Kobor, M. S., Zebley, C. C., Weber, E. W., Mackall, et al

  2023; 120 (14): e2219086120

- **Co-opting signalling molecules enables logic-gated control of CAR T cells.** *Nature*

  Tousley, A. M., Rotiroti, M. C., Labanieh, L., Rysavy, L. W., Kim, W. J., Lareau, C., Sotillo, E., Weber, E. W., Rietberg, S. P., Dalton, G. N., Yin, Y., Klysz, D., Xu, et al

  2023

- **HLH-like toxicities predict poor survival following use of tisagenlecleucel in children and young adults with B-ALL.** *Blood advances*

  McNerney, K. O., Si Lim, S., Ishikawa, K., Dreyzin, A., Vatsayan, A., Chen, J. J., Baggott, C., Prabhu, S., Pacenta, H. L., Phillips, C. L., Rossoff, J., Stefanski, H. E., Talano, et al

  2023

- **Role of peripheral blood MRD and 18F-FDG PET in the post-CAR relapse setting: a case study of discordant peripheral blood and bone marrow MRD.** *Journal for immunotherapy of cancer*

  Schultz, L., Davis, K. L., Walkush, A., Baggott, C., Erickson, C., Ramakrishna, S., Aftandilian, C., Lacayo, N., Nadel, H. R., Oak, J., Mackall, C. L.

  2023; 11 (2)

- **CAR-ASSOCIATED HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS (carHLH) IS ASSOCIATED WITH PRE-INFUSION INFLAMMATION AND HIGH DISEASE BURDEN AND PREDICTS POOR OUTCOMES FOLLOWING TISAGENLECLEUCEL IN PEDIATRIC B-ALL**

  McNerney, K. O., Lim, S., Ishikawa, K., Dreyzin, A., Vatsayan, A., Chen, J. J., Baggott, C., Prabhu, S., Pacenta, H., Philips, C., Rossoff, J., Stefanski, H., Talano, et al

  WILEY.2023: S32-S33

- **CAR immune cells: design principles, resistance and the next generation.** *Nature*

  Labanieh, L., Mackall, C. L.

  2023; 614 (7949): 635-648

- **Determinants of resistance to engineered T cell therapies targeting CD19 in large B cell lymphomas.** *Cancer cell*

  Sworder, B. J., Kurtz, D. M., Alig, S. K., Frank, M. J., Shukla, N., Garofalo, A., Macaulay, C. W., Shahrokh Esfahani, M., Olsen, M. N., Hamilton, J., Hosoya, H., Hamilton, M., Spiegel, et al

  2022

- **The impact of race, ethnicity, and obesity on CAR T-cell therapy outcomes.** *Blood advances*

  Faruqi, A. J., Ligon, J. A., Borgman, P., Steinberg, S. M., Foley, T., Little, L., Mackall, C. L., Lee, D. W., Fry, T. J., Shalabi, H., Brudno, J., Yates, B., Mikkilineni, et al

  2022; 6 (23): 6040-6050

- **Determinants of Resistance to Engineered T-Cell Therapies Targeting CD19 in Large B-Cell Lymphomas**

  Sworder, B., Kurtz, D. M., Alig, S. K., Frank, M. J., Shukla, N. D., Garofalo, A., Macaulay, C., Esfahani, M., Olsen, M., Hamilton, J., Hosoya, H., Hamilton, M. P., Spiegel, et al

  AMER SOC HEMATOLOGY.2022: 1301-1303

- **Higher Rates of Severe Infection and Persistent Cytopenias in Long-Term CAR19 Responders Than after Autologous HCT: A Single Institution Study of 139 Subjects**

  Hamilton, M. P., Liu-Fei, F. C., Alig, S. K., Tamaresis, J., Esfahani, M., Good, Z., Sworder, B., Schroers-Martin, J., Liu, C., Severinsen, F., Hanson, P. J., Lu, Y., Lowsky, et al

  AMER SOC HEMATOLOGY.2022: 7545-7547

- **Analysis of Bendamustine Lymphodepletion, CD19 CART Expansion, Safety and Efficacy in Patients with Rel/Ref NonHodgkin Lymphoma**

  Bharadwaj, S., Hamilton, M. P., Sahaf, B., Tamaresis, J., Patil, S., Hanson, P. J., Latchford, T., Arai, S., Johnston, L. J., Lowsky, R., Negrin, R. S., Rezvani, A. R., Shizuru, et al

  AMER SOC HEMATOLOGY.2022: 10371-10373

- **Standard Cytogenetic Risk Stratification Is Not Predictive of CD19 CAR Outcomes and Impact of Disease Burden Varies between Cytogenetic Risk Groups**
  Molina, J. C., Chinnabhandar, V., Fabrizio, V. A., Kunicki, M., Pacenta, H., Rossoff, J., Stefanski, H. E., Talano, J., Moskop, A., Verneris, M. R., Myers, G., Karras, N., Baggott, et al
  AMER SOC HEMATOLOGY.2022: 10386-10388

- **Obesity Associates with Inferior Outcomes and Toxicity in Pediatric and Young Adult Patient with Relapsed/ Refractory B-Cell Acute Lymphoblastic Leukemia Treated with Commercially Manufactured Tisagenlecleucel**
  Ross, A. J., Baggott, C., Prabhu, S., Pacenta, H., Philips, C., Rossoff, J., Stefanski, H. E., Talano, J., Moskop, A., Baumeister, S. H. C., Verneris, M. R., Myers, G., Karras, et al
  AMER SOC HEMATOLOGY.2022: 10419-10421

- **Long-Term Follow-up of CD19/22 CAR Therapy in Children and Young Adults with B-ALL Reveals Efficacy, Tolerability and High Survival Rates When Coupled with Hematopoietic Stem Cell Transplantation**
  Schultz, L. M., Ramakrishna, S., Baskar, R., Richards, R. M., Moon, J., Baggott, C., Fujimoto, M., Kunicki, M., Li, A., Jariwala, S., Erickson, C., Jacobs, A., Yamabe, et al
  AMER SOC HEMATOLOGY.2022: 10300-10302

- **Peripheral Blast Count at Apheresis Acts Independent of Disease Burden As a Risk Factor for Survival Following Tisagenlecleucel in Children and Young Adults**
  Fabrizio, V. A., Miller, K., Baggott, C., Prabhu, S., Pacenta, H., Phillips, C. L., Rossoff, J., Stefanski, H. E., Talano, J., Moskop, A., Baumeister, S. H. C., Myers, G., Karras, et al
  AMER SOC HEMATOLOGY.2022: 4661-4663

- **CD22 CAR T Cells Demonstrate Favorable Safety Profile and High Response Rates in Pediatric and Adult B-ALL: Results of a Phase 1b Study**
  Jeyakumar, N., Ramakrishna, S., Frank, M. J., Sahaf, B., Feldman, S. A., Miklos, D. B., Mackall, C. L., Davis, K. L., Muffly, L., Schultz, L. M.
  AMER SOC HEMATOLOGY.2022: 2374-2375

- **Enhanced T cell effector activity by targeting the Mediator kinase module.** *Science (New York, N.Y.)*
  Freitas, K. A., Belk, J. A., Sotillo, E., Quinn, P. J., Ramello, M. C., Malipatlolla, M., Daniel, B., Sandor, K., Klysz, D., Bjelajac, J., Xu, P., Burdsall, K. A., Tieu, et al
  2022; 378 (6620): eabn5647

- **STASH SELECT, A SIMPLE AND ROBUST METHOD OF PURIFYING CELLS ENGINEERED WITH MULTIPLE VECTORS USING A SINGLE SELECTION MARKER**
  Labanieh, L., Pacheco, K., Majzner, R., Fisher, C., Sotillo, E., Xu, P., Cochran, J., Mackall, C.
  BMJ PUBLISHING GROUP.2022: A371

- **DEEP MYELOID CELL PROFILING PROVIDES NEW INSIGHTS INTO MODULATORS OF CAR T CELL EXPANSION IN PATIENTS WITH SOLID TUMOR MALIGNANCIES**
  Kaczanowska, S., Ramakrishna, S., Murty, T., Contreras, C., Alimadadi, A., Gutierrez, N., Jhaveri, A., Liu, Y., Altreuter, J., Michor, F., Duault, C., Balasubrahmanyam, P., Reynolds, et al
  BMJ PUBLISHING GROUP.2022: A418

- **DEFINING T CELL EXHAUSTION AND MEMORY CORRELATES OF GD2 CAR T CELL EXPANSION IN PEDIATRIC PATIENTS WITH SOLID TUMOR MALIGNANCIES**
  Murty, T., Ramakrishna, S., Kaczanowska, S., Contreras, C., Duault, C., Balasubrahmanyam, P., Reynolds, W., Baskar, R., Jhaveri, A., Liu, Y., Altreuter, J., Michor, F., Pichavant, et al
  BMJ PUBLISHING GROUP.2022: A381

- **A Phase I/II Trial of Nivolumab Plus Ipilimumab in Children and Young Adults with Relapsed/Refractory Solid Tumors: A Children's Oncology Group Study ADVL1412.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Davis, K. L., Fox, E., Isikwei, E., Reid, J. M., Liu, X., Minard, C. G., Voss, S., Berg, S. L., Weigel, B. J., Mackall, C. L.
  2022

- **Outcomes After Nonresponse and Relapse Post-Tisagenlecleucel in Children, Adolescents, and Young Adults With B-Cell Acute Lymphoblastic Leukemia.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
  Schultz, L. M., Eaton, A., Baggott, C., Rossoff, J., Prabhu, S., Keating, A. K., Krupski, C., Pacenta, H., Philips, C. L., Talano, J., Moskop, A., Baumeister, S. H., Myers, et al
  2022: JCO2201076

- **Post-infusion CAR T-Reg cells identify patients resistant to CD19-CAR therapy** *NATURE MEDICINE*
  Good, Z., Spiegel, J. Y., Sahaf, B., Malipatlolla, M. B., Ehlinger, Z. J., Kurra, S., Desai, M. H., Reynolds, W. D., Lin, A., Vandris, P., Wu, F., Prabhu, S., Hamilton, et al
  2022

- **Higher doses of tisagenlecleucel associate with improved outcomes: a report from the pediatric real-world CAR consortium.** *Blood advances*
  Stefanski, H., Eaton, A., Baggott, C., Rossoff, J., Verneris, M. R., Keating, A. K., Prabhu, S., Pacenta, H. L., Phillips, C. L., Talano, J., Moskop, A., Margossian, S. P., Myers, et al
  2022

- **CD19/22 CAR T cells in children and young adults with B-ALL: phase 1 results and development of a novel bicistronic CAR.** *Blood*
  Shalabi, H., Qin, H., Su, A., Yates, B., Wolters, P. L., Steinberg, S. M., Ligon, J. A., Silbert, S., DéDé, K., Benzaoui, M., Goldberg, S., Achar, S., Schneider, et al
  2022; 140 (5): 451-463

- **Genome-wide CRISPR screens of T cell exhaustion identify chromatin remodeling factors that limit T cell persistence.** *Cancer cell*
  Belk, J. A., Yao, W., Ly, N., Freitas, K. A., Chen, Y. T., Shi, Q., Valencia, A. M., Shifrut, E., Kale, N., Yost, K. E., Duffy, C. V., Daniel, B., Hwee, et al
  2022

- **Metabolic engineering of CAR-T cells overcomes suppressive adenosine signaling and enhances functionality**
  Klysz, D., Malipatlolla, M., Freitas, K., Bashti, M., Labanieh, L., Xu, P., Ramello, C., Lerust, A., Want, H., Pacheco, K., Weber, E. W., Patel, S., Feldman, et al
  AMER ASSOC CANCER RESEARCH.2022

- **Enhanced effector activity of mediator CDK8 kinase module deficient CAR-T Cells**
  Freitas, K. A., Belk, J. A., Sotillo, E., Daniel, B., Sandor, K., Klysz, D., Duong, V. T., Xu, P., Malipatlolla, M., Weber, E. W., Majzner, R. G., Chang, H. Y., Satpathy, et al
  AMER ASSOC CANCER RESEARCH.2022

- **Reverse fate mapping of CD19-targeted CAR T cells in patients with large B-cell lymphoma**
  Good, Z., Hamilton, M. P., Spiegel, J. Y., Kurra, S., Desai, M., Prabhu, S., Yang, E., Ozawa, M. G., Hanson, P. J., Wu, F., Frank, M. J., Baird, J. H., Muffly, et al
  AMER ASSOC CANCER RESEARCH.2022

- **Major tumor regressions in H3K27M-mutated diffuse midline glioma (DMG) following sequential intravenous (IV) and intracerebroventricular (ICV) delivery of GD2-CAR T cells**
  Majzner, R. G., Mahdi, J., Ramakrishna, S., Patel, S., Chinnasamy, H., Yeom, K., Schultz, L., Barsan, V., Richards, R., Campen, C., Reschke, A., Toland, A., Baggott, et al
  AMER ASSOC CANCER RESEARCH.2022

- **Exploring the role of telomerase in senescence and exhaustion in CAR T cell immunotherapy**
  Murty, T., Ramello, M. C., Sotillo, E., Chen, L., Artandi, S. A., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2022

- **The Impact of Race, Ethnicity, and Obesity on CAR T-cell Therapy Outcomes in Children and Young Adults with B-cell Acute Lymphoblastic Leukemia (B-ALL)**
  Faruqi, A. J., Ligon, J., Borgman, P., Steinberg, S. M., Foley, T., Little, L., Mackall, C., Lee, D. W., Fry, T. J., Shalabi, H., Yates, B., Shah, N. N.
  WILEY.2022

- **MAJOR TUMOR REGRESSIONS IN H3K27M-MUTATED DIFFUSE MIDLINE GLIOMA (DMG) FOLLOWING SEQUENTIAL INTRAVENOUS (IV) AND INTRACEREBROVENTRICULAR (ICV) DELIVERY OF GD2-CAR T-CELLS**
  Monje, M., Majzner, R., Mahdi, J., Ramakrishna, S., Patel, S., Chinnasamy, H., Yeom, K., Schultz, L., Barsan, V., Richards, R., Campen, C., Reschke, A., Toland, et al
  OXFORD UNIV PRESS INC.2022: 20-21

- **Outcomes of Hispanic and non-Hispanic white pediatric and young adult patients with B-cell acute lymphoblastic leukemia after commercial tisagenlecleucel.**
  Vandris, P., Chao, K., Baggott, C., Phillips, C. L., Qayed, M., Rossoff, J., Lim, S., Winestone, L. E., Stefanski, H. E., Talano, J. M., Margossian, S., Verneris, M. R., Myers, et al
  LIPPINCOTT WILLIAMS & WILKINS.2022

- **Real-World Use of Tisagenlecleucel in Infant Acute Lymphoblastic Leukemia.** *Blood advances*
  Moskop, A., Pommert, L., Baggott, C., Prabhu, S., Pacenta, H. L., Phillips, C. L., Rossoff, J., Stefanski, H., Talano, J., Margossian, S. P., Verneris, M. R., Myers, G. D., Karras, et al
  2022

- **Efficacy of second CAR-T (CART2) infusion limited by poor CART expansion and antigen modulation.** *Journal for immunotherapy of cancer*
  Holland, E. M., Molina, J. C., Dede, K., Moyer, D., Zhou, T., Yuan, C. M., Wang, H., Stetler-Stevenson, M., Mackall, C., Fry, T. J., Panch, S., Highfill, S., Stroncek, et al
  2022; 10 (5)

- **Enhanced safety and efficacy of protease-regulated CAR-T cell receptors.** *Cell*
  Labanieh, L., Majzner, R. G., Klysz, D., Sotillo, E., Fisher, C. J., Vilches-Moure, J. G., Pacheco, K. Z., Malipatlolla, M., Xu, P., Hui, J. H., Murty, T., Theruvath, J., Mehta, et al
  2022

- **Delivery of CAR-T cells in a transient injectable stimulatory hydrogel niche improves treatment of solid tumors.** *Science advances*
  Grosskopf, A. K., Labanieh, L., Klysz, D. D., Roth, G. A., Xu, P., Adebowale, O., Gale, E. C., Jons, C. K., Klich, J. H., Yan, J., Maikawa, C. L., Correa, S., Ou, et al
  2022; 8 (14): eabn8264

- **GD2-CAR T cell therapy for H3K27M-mutated diffuse midline gliomas.** *Nature*
  Majzner, R. G., Ramakrishna, S., Yeom, K. W., Patel, S., Chinnasamy, H., Schultz, L. M., Richards, R. M., Jiang, L., Barsan, V., Mancusi, R., Geraghty, A. C., Good, Z., Mochizuki, et al
  2022

- **Anti-GD2 synergizes with CD47 blockade to mediate tumor eradication.** *Nature medicine*
  Theruvath, J., Menard, M., Smith, B. A., Linde, M. H., Coles, G. L., Dalton, G. N., Wu, W., Kiru, L., Delaidelli, A., Sotillo, E., Silberstein, J. L., Geraghty, A. C., Banuelos, et al
  1800

- **GPC2-CAR T cells tuned for low antigen density mediate potent activity against neuroblastoma without toxicity** *CANCER CELL*
  Heitzeneder, S., Bosse, K. R., Zhu, Z., Zhelev, D., Majzner, R. G., Radosevich, M. T., Dhingra, S., Sotillo, E., Buongervino, S., Pascual-Pasto, G., Garrigan, E., Xu, P., Huang, et al
  2022; 40 (1): 53-+

- **Neurotoxicity Following CD19/CD28ζ CAR T-Cells in Children and Young Adults with B-Cell Malignancies.** *Neuro-oncology*
  Shalabi, H., Martin, S., Yates, B., Wolters, P. L., Kaplan, C., Smith, H., Sesi, C. R., Jess, J., Toledo-Tamula, M. A., Struemph, K., Delbrook, C. P., Khan, O. I., Mackall, et al
  2022

- **GPC2-CAR Tcells tuned for low antigen density mediate potent activity against neuroblastoma without toxicity.** *Cancer cell*
  Heitzeneder, S., Bosse, K. R., Zhu, Z., Zhelev, D., Majzner, R. G., Radosevich, M. T., Dhingra, S., Sotillo, E., Buongervino, S., Pascual-Pasto, G., Garrigan, E., Xu, P., Huang, et al
  1800

- **Disease Burden Affects Outcomes in Pediatric and Young Adult B-Cell Lymphoblastic Leukemia After Commercial Tisagenlecleucel: A Pediatric Real-World Chimeric Antigen Receptor Consortium Report.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
  Schultz, L. M., Baggott, C., Prabhu, S., Pacenta, H. L., Phillips, C. L., Rossoff, J., Stefanski, H. E., Talano, J., Moskop, A., Margossian, S. P., Verneris, M. R., Myers, G. D., Karras, et al
  2021: JCO2003585

- **Paediatric Strategy Forum for medicinal product development of chimeric antigen receptor T-cells in children and adolescents with cancer: ACCELERATE in collaboration with the European Medicines Agency with participation of the Food and Drug Administration.** *European journal of cancer (Oxford, England : 1990)*
  Pearson, A. D., Rossig, C., Mackall, C., Shah, N. N., Baruchel, A., Reaman, G., Ricafort, R., Heenen, D., Bassan, A., Berntgen, M., Bird, N., Bleickardt, E., Bouchkouj, et al
  2021

- **CD22-CAR T-Cell Therapy Mediates High Durable Remission Rates in Adults with Large B-Cell Lymphoma Who Have Relapsed after CD19-CAR T-Cell Therapy**

Frank, M. J., Baird, J. H., Patel, S., Craig, J., Spiegel, J. Y., Ehlinger, Z., Chinnasamy, H., Younes, S. F., Oak, J. S., Natkunam, Y., Reynolds, W. D., Iglesias, M., Crawford, et al

AMER SOC HEMATOLOGY.2021

- **Tisagenlecleucel Outcomes in Relapsed/Refractory Extramedullary ALL: A Pediatric Real World CAR Consortium Report.** *Blood advances*

  Fabrizio, V. A., Phillips, C. L., Lane, A., Baggott, C., Prabhu, S., Egeler, E., Mavroukakis, S., Pacenta, H. L., Rossoff, J., Stefanski, H., Talano, J. A., Moskop, A., Margossian, et al

  2021

- **Optimal fludarabine lymphodepletion is associated with improved outcomes following CAR T-cell Therapy.** *Blood advances*

  Fabrizio, V. A., Boelens, J. J., Mauguen, A., Baggott, C., Prabhu, S., Egeler, E., Mavroukakis, S., Pacenta, H. L., Phillips, C. L., Rossoff, J., Stefanski, H., Talano, J. A., Moskop, et al

  2021

- **Incidence and risk factors associated with bleeding and thrombosis following chimeric antigen receptor T-cell therapy** *BLOOD ADVANCES*

  Johnsrud, A., Craig, J., Baird, J., Spiegel, J., Muffly, L., Zehnder, J., Tamaresis, J., Negrin, R., Johnston, L., Arai, S., Shizuru, J., Lowsky, R., Meyer, et al

  2021; 5 (21): 4465-4475

- **Gene Editing to Enhance the Efficacy of Cancer Cell Therapies.** *Molecular therapy : the journal of the American Society of Gene Therapy*

  Murty, T., Mackall, C. L.

  2021

- **Infectious Complications of CAR T-Cell Therapy Across Novel Antigen Targets in the first 30 days.** *Blood advances*

  Mikkilineni, L., Yates, B., Steinberg, S. M., Shahani, S. A., Molina, J. C., Palmore, T. N., Lee, D. W., Kaplan, R. N., Mackall, C. L., Fry, T. J., Gea-Banacloche, J., Jerussi, T. D., Nussenblatt, et al

  2021

- **Out of Specification Tisagenlecleucel Does Not Compromise Safety or Efficacy in Pediatric Acute Lymphoblastic Leukemia.** *Blood*

  Rossoff, J., Baggott, C., Prabhu, S., Pacenta, H. L., Phillips, C. L., Stefanski, H., Talano, J. A., Moskop, A., Margossian, S. P., Verneris, M. R., Myers, G. D., Karras, N. A., Brown, et al

  2021

- **Allogeneic CAR-invariant Natural Killer T Cells Exert Potent Antitumor Effects Through Host CD8 T Cell Cross-Priming.** *Clinical cancer research : an official journal of the American Association for Cancer Research*

  Simonetta, F., Lohmeyer, J. K., Hirai, T., Maas-Bauer, K., Alvarez, M., Wenokur, A. S., Baker, J., Aalipour, A., Ji, X., Haile, S. T., Mackall, C. L., Negrin, R.

  2021

- **Dynamic chromatin regulatory landscape of human CAR T cell exhaustion.** *Proceedings of the National Academy of Sciences of the United States of America*

  Gennert, D. G., Lynn, R. C., Granja, J. M., Weber, E. W., Mumbach, M. R., Zhao, Y., Duren, Z., Sotillo, E., Greenleaf, W. J., Wong, W. H., Satpathy, A. T., Mackall, C. L., Chang, et al

  2021; 118 (30)

- **CAR T cells with dual targeting of CD19 and CD22 in adult patients with recurrent or refractory B cell malignancies: a phase 1 trial.** *Nature medicine*

  Spiegel, J. Y., Patel, S., Muffly, L., Hossain, N. M., Oak, J., Baird, J. H., Frank, M. J., Shiraz, P., Sahaf, B., Craig, J., Iglesias, M., Younes, S., Natkunam, et al

  2021

- **A fructo-oligosaccharide prebiotic is well-tolerated in adults undergoing allogeneic hematopoietic stem cell transplantation: a phase I dose-escalation trial.** *Transplantation and cellular therapy*

  Andermann, T. M., Fouladi, F., Tamburini, F. B., Sahaf, B., Tkachenko, E., Greene, C., Buckley, M. T., Brooks, E. F., Hedlin, H., Arai, S., Mackall, C. L., Miklos, D., Negrin, et al

  2021

- **The role of exhaustion in CAR T cell therapy** *CANCER CELL*

  Delgoffe, G. M., Xu, C., Mackall, C. L., Green, M. R., Gottschalk, S., Speiser, D. E., Zehn, D.

  2021; 39 (7): 885-888

- **GD2 CAR T cells mediate clinical activity and manageable toxicity in children and young adults with DIPG and H3K27M-mutated diffuse midline gliomas.**
  Majzner, R. G., Ramakrishna, S., Mochizuki, A., Patel, S., Chinnasamy, H., Yeom, K., Schultz, L., Richards, R., Campen, C., Reschke, A., Mahdi, J., Toland, A., Baggott, et al
  AMER ASSOC CANCER RESEARCH.2021

- **Transient "rest" reinvigorates exhausted CAR T cells via epigenetic remodeling.**
  Weber, E. W., Mackall, C.
  AMER ASSOC CANCER RESEARCH.2021

- **Advancing childhood cancer research through young investigator and advocate collaboration.**
  Weiner, A. K., Lindberg, G., Moll, M., Palmer, A., Reidy, K., Diskin, S. J., Mackall, C. L., Maris, J. M., Sullivan, P. J.
  AMER ASSOC CANCER RESEARCH.2021

- **Potent activity of CAR T cells targeting the oncofetal protein GPC2 engineered to recognize low antigen density in neuroblastoma.**
  Heitzeneder, S., Bosse, K. R., Zhu, Z., Jelev, D., Dhingra, S., Majzner, R., Sotillo-Pineiro, E., Buongervino, S., Xu, P., Huang, J., Delaidelli, A., Hasselblatt, M., Parker, et al
  AMER ASSOC CANCER RESEARCH.2021

- **Monitoring of Circulating Tumor DNA Improves Early Relapse Detection After Axicabtagene Ciloleucel Infusion in Large B-Cell Lymphoma: Results of a Prospective Multi-Institutional Trial.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
  Frank, M. J., Hossain, N. M., Bukhari, A., Dean, E., Spiegel, J. Y., Claire, G. K., Kirsch, I., Jacob, A. P., Mullins, C. D., Lee, L. W., Kong, K. A., Craig, J., Mackall, et al
  2021: JCO2100377

- **SINGLE CELL RNA SEQUENCING FROM THE CSF OF SUBJECTS WITH H3K27M+DIPG/DMG TREATED WITH GD2 CAR T-CELLULAR THERAPY**
  Mochizuki, A., Ramakrishna, S., Good, Z., Patel, S., Chinnasamy, H., Yeom, K., Schultz, L., Richards, R., Campen, C., Reschke, A., Mahdi, J., Toland, A., Baggot, et al
  OXFORD UNIV PRESS INC.2021: 39

- **GD2 CAR T-CELLS MEDIATE CLINICAL ACTIVITY AND MANAGEABLE TOXICITY IN CHILDREN AND YOUNG ADULTS WITH H3K27M-MUTATED DIPG AND SPINAL CORD DMG**
  Majzner, R., Ramakrishna, S., Mochizuki, A., Patel, S., Chinnasamy, H., Yeom, K., Schultz, L., Richards, R., Campen, C., Reschke, A., Mahdi, J., Martin, A., Toland, et al
  OXFORD UNIV PRESS INC.2021: 49-50

- **Transient rest restores functionality in exhausted CAR-T cells through epigenetic remodeling.** *Science (New York, N.Y.)*
  Weber, E. W., Parker, K. R., Sotillo, E., Lynn, R. C., Anbunathan, H., Lattin, J., Good, Z., Belk, J. A., Daniel, B., Klysz, D., Malipatlolla, M., Xu, P., Bashti, et al
  2021; 372 (6537)

- **Long-Term Follow-Up of CD19-CAR T-Cell Therapy in Children and Young Adults With B-ALL.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
  Shah, N. N., Lee, D. W., Yates, B., Yuan, C. M., Shalabi, H., Martin, S., Wolters, P. L., Steinberg, S. M., Baker, E. H., Delbrook, C. P., Stetler-Stevenson, M., Fry, T. J., Stroncek, et al
  2021: JCO2002262

- **Immune reconstitution and infectious complications following axicabtagene ciloleucel therapy for large B-cell lymphoma.** *Blood advances*
  Baird, J. H., Epstein, D. J., Tamaresis, J. S., Ehlinger, Z., Spiegel, J. Y., Craig, J., Claire, G. K., Frank, M. J., Muffly, L., Shiraz, P., Meyer, E., Arai, S., Brown, et al
  2021; 5 (1): 143-155

- **Immune reconstitution and infectious complications following axicabtagene ciloleucel therapy for large B-cell lymphoma** *BLOOD ADVANCES*
  Baird, J. H., Epstein, D. J., Tamaresis, J. S., Ehlinger, Z., Spiegel, J. Y., Craig, J., Claire, G. K., Frank, M. J., Muffly, L., Shiraz, P., Meyer, E., Arai, S., Brown, et al
  2021; 5 (1): 143–55

- **Global analysis of shared T cell specificities in human non-small cell lung cancer enables HLA inference and antigen discovery.** *Immunity*
  Chiou, S. H., Tseng, D. n., Reuben, A. n., Mallajosyula, V. n., Molina, I. S., Conley, S. n., Wilhelmy, J. n., McSween, A. M., Yang, X. n., Nishimiya, D. n., Sinha, R. n., Nabet, B. Y., Wang, et al

2021; 54 (3): 586–602.e8

- **NOT-Gated CD93 CAR T Cells Effectively Target AML with Minimized Endothelial Cross-Reactivity.** *Blood cancer discovery*
  Richards, R. M., Zhao, F., Freitas, K. A., Parker, K. R., Xu, P., Fan, A., Sotillo, E., Daugaard, M., Oo, H. Z., Liu, J., Hong, W. J., Sorensen, P. H., Chang, et al
  2021; 2 (6): 648-665

- **Incidence and Risk Factors Associated with Bleeding and Thrombosis Following Chimeric Antigen Receptor T Cell Therapy.** *Blood advances*
  Johnsrud, A. J., Craig, J., Baird, J. H., Spiegel, J. Y., Muffly, L., Zehnder, J. L., Tamaresis, J. S., Negrin, R. S., Johnston, L., Arai, S., Shizuru, J. A., Lowsky, R., Meyer, et al
  2021

- **Factors Impacting Overall and Event Free Survival Following Post-CAR T-cell Consolidative Hematopoietic Stem Cell Transplant.** *Transplantation and cellular therapy*
  Molina, J. C., Steinberg, S. M., Yates, B., Lee, D. W., Little, L., Mackall, C. L., Shalabi, H., Shah, N. N.
  2021

- **Allogeneic Chimeric Antigen receptor-invariant Natural Killer T Cells Exert Both Direct and Indirect Antitumor Effects through Host Cd8 T Cell cross-priming**
  Simonetta, F., Hirai, T., Lohmeyer, J. K., Maas-Bauer, K., Alvarez, M., Wenokur, A. S., Baker, J., Aalipour, A., Haile, S., Mackall, C. L., Negrin, R. S.
  SPRINGERNATURE.2020: 259–60

- **Frontiers in cancer immunotherapy-a symposium report.** *Annals of the New York Academy of Sciences*
  Cable, J., Greenbaum, B., Pe'er, D., Bollard, C. M., Bruni, S., Griffin, M. E., Allison, J. P., Wu, C. J., Subudhi, S. K., Mardis, E. R., Brentjens, R., Sosman, J. A., Cemerski, et al
  2020

- **GD2 IS A MACROPHAGE CHECKPOINT MOLECULE AND COMBINED GD2/CD47 BLOCKADE RESULTS IN SYNERGISTIC EFFECTS AGAINST GD2 POSITIVE MALIGNANCIES**
  Theruvath, J., Mount, C., Monje, M., Mackall, C., Majzner, R.
  OXFORD UNIV PRESS INC.2020: 116

- **Multiplexed ion beam imaging to describe tumor-immune microenvironment and tumor heterogeneity in neuroblastoma.**
  Kammersgaard, M. B., Bosse, M., Martinez, D., Bosse, K. R., Maris, J. M., Mackall, C. L., Angelo, R. M., Davis, K. L.
  AMER ASSOC CANCER RESEARCH.2020

- **Molecular Imaging of Chimeric Antigen Receptor T Cells by ICOS-ImmunoPET.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Simonetta, F., Alam, I. S., Lohmeyer, J. K., Sahaf, B., Good, Z., Chen, W., Xiao, Z., Hirai, T., Scheller, L., Engels, P., Vermesh, O., Robinson, E., Haywood, et al
  2020

- **PET reporter gene imaging and ganciclovir-mediated ablation of chimeric antigen receptor T-cells in solid tumors.** *Cancer research*
  Murty, S., Labanieh, L., Murty, T., Gowrishankar, G., Haywood, T., Alam, I. S., Beinat, C., Robinson, E., Aalipour, A., Klysz, D. D., Cochran, J. R., Majzner, R. G., Mackall, et al
  2020

- **Identification of dual positive CD19+/CD3+ T cells in a leukapheresis product undergoing CAR transduction: a case report.** *Journal for immunotherapy of cancer*
  Schultz, L., Patel, S., Davis, K. L., Ramakrishna, S., Sahaf, B., Bhatia, N., Baggott, C., Erickson, C., Majzner, R. G., Oak, J., Bertaina, A., Mackall, C., Feldman, et al
  2020; 8 (2)

- **Novel NanoLuc substrates enable bright two-population bioluminescence imaging in animals.** *Nature methods*
  Su, Y., Walker, J. R., Park, Y., Smith, T. P., Liu, L. X., Hall, M. P., Labanieh, L., Hurst, R., Wang, D. C., Encell, L. P., Kim, N., Zhang, F., Kay, et al
  2020

- **Glypican-2 targeted CAR T cells designed to effectively eradicate endogenous site density solid tumors in the absence of toxicity**
  Heitzeneder, S., Bosse, K. R., Zhu, Z., Majzner, R. G., Theruvath, J., Xu, P., Dhingra, S., Anbunathan, H., Alag, A., Dimitrov, D. S., Maris, J. M., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2020: 46

- **Locoregionally administered B7H3-targeting CAR T cells mediate potent antitumor effects in atypical teratoid/rhabdoid tumor**
  Theruvath, J., Sotillo, E., Graef, C., Heitzeneder, S., Labanieh, L., Majzner, R., Mackall, C.
  AMER ASSOC CANCER RESEARCH.2020: 33

- **GD2 is a macrophage checkpoint molecule and combined GD2/CD47 blockade results in synergistic effects and tumor clearance in xenograft models of neuroblastoma and osteosarcoma**
  Theruvath, J., Smith, B., Linde, M. H., Sotillo, E., Heitzeneder, S., Marjon, K., Tousley, A., Lattin, J., Banuelos, A., Dhingra, S., Murty, S., Mackall, C. L., Majzner, et al
  AMER ASSOC CANCER RESEARCH.2020: 35

- **Safety and activity of autologous T cells with enhanced NY-ESO-1-specific T-cell receptor (GSK3377794) in HLA-a*02(+) previously-treated and - untreated patients with advanced metastatic/unresectable synovial sarcoma: A master protocol study design (IGNYTE-ESO).**
  D'Angelo, S. P., Blay, J., Chow, W., Demetri, G. D., Thistlethwaite, F., Sen, S., Razak, A., Haanen, J. G., Noujaim, J., Johnson, M., Laetsch, T., Chiou, V. L., Pearce, et al
  LIPPINCOTT WILLIAMS & WILKINS.2020

- **Discovery of a novel shared tumor antigen in human lung cancer.**
  Tseng, D., Chiou, S., Yang, X., Reuben, A., Wilhelmy, J., McSween, A., Conley, S., Sinha, R., Nabet, B., Wang, C., Shrager, J. B., Berry, M. F., Backhus, et al
  AMER SOC CLINICAL ONCOLOGY.2020

- **CD4/CD8 T-Cell Selection Affects Chimeric Antigen Receptor (CAR) T-Cell Potency and Toxicity: Updated Results From a Phase I Anti-CD22 CAR T-Cell Trial.** *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*
  Shah, N. N., Highfill, S. L., Shalabi, H., Yates, B., Jin, J., Wolters, P. L., Ombrello, A., Steinberg, S. M., Martin, S., Delbrook, C., Hoffman, L., Little, L., Ponduri, et al
  2020: JCO1903279

- **Prospects and Challenges for Use of CAR T Cell Therapies in Solid Tumors.** *Expert opinion on biological therapy*
  Ramakrishna, S., Barsan, V., Mackall, C.
  2020

- **Allogeneic Chimeric Antigen Receptor-Invariant Natural Killer T Cells Exert Both Direct and Indirect Antitumor Effects through Host CD8 T Cell Cross-Priming**
  Simonetta, F., Hirai, T., Lohmeyer, F., Maas-Bauer, K., Alvarez, M., Wenokur, A., Baker, J., Aalipour, A., Haile, S., Mackall, C. L., Negrin, R. S.
  ELSEVIER SCIENCE INC.2020: S42

- **Immune-Based Approaches for the Treatment of Pediatric Malignancies.** *Annual review of cancer biology*
  Bosse, K. R., Majzner, R. G., Mackall, C. L., Maris, J. M.
  2020; 4: 353-370

- **Immune receptor inhibition through enforced phosphatase recruitment.** *Nature*
  Fernandes, R. A., Su, L. n., Nishiga, Y. n., Ren, J. n., Bhuiyan, A. M., Cheng, N. n., Kuo, C. J., Picton, L. K., Ohtsuki, S. n., Majzner, R. G., Rietberg, S. P., Mackall, C. L., Yin, et al
  2020

- **Molecular Imaging of Chimeric Antigen Receptor T Cells by ICOS-ImmunoPET** *Clinical cancer research: an official journal of the American Association for Cancer Research*
  Alam*, I. S., Simonetta*, F.
  2020: 1058–68

- **Intravital imaging reveals synergistic effect of CAR T-cells and radiation therapy in a preclinical immunocompetent glioblastoma model** *Oncoimmunology*
  Murty, S., Haile, S. T., Beinat, C., Aalipour, A., Alam, I. S., Murty, T., Shaffer, T. M., Patel, C. B., Graves, E. E., Mackall, C. L., Gambhir, S. S.
  2020; 9 (1)

- **Locoregionally administered B7-H3-targeted CAR T cells for treatment of atypical teratoid/rhabdoid tumors.** *Nature medicine*
  Theruvath, J. n., Sotillo, E. n., Mount, C. W., Graef, C. M., Delaidelli, A. n., Heitzeneder, S. n., Labanieh, L. n., Dhingra, S. n., Leruste, A. n., Majzner, R. G., Xu, P. n., Mueller, S. n., Yecies, et al
  2020

- **CD22-Directed CAR T-Cell Therapy Induces Complete Remissions in CD19-Directed CAR-Refractory Large B-Cell Lymphoma.** *Blood*

Baird, J. H., Frank, M. J., Craig, J. n., Patel, S. n., Spiegel, J. Y., Sahaf, B. n., Oak, J. S., Younes, S. n., Ozawa, M. n., Yang, E. n., Natkunam, Y. n., Tamaresis, J. S., Ehlinger, et al
2020

- **The Emerging Landscape of Immune Cell Therapies.** *Cell*
  Weber, E. W., Maus, M. V., Mackall, C. L.
  2020; 181 (1): 46–62

- **Immune-Based Approaches for the Treatment of Pediatric Malignancies** *ANNUAL REVIEW OF CANCER BIOLOGY, VOL 4*
  Bosse, K. R., Majzner, R. G., Mackall, C. L., Maris, J. M.
  edited by Jacks, T., Sawyers, C. L.
  2020; 4: 353–70

- **Impact of cytokine release syndrome on cardiac function following CD19 CAR-T cell therapy in children and young adults with hematological malignancies.** *Journal for immunotherapy of cancer*
  Shalabi, H. n., Sachdev, V. n., Kulshreshtha, A. n., Cohen, J. W., Yates, B. n., Rosing, D. R., Sidenko, S. n., Delbrook, C. n., Mackall, C. n., Wiley, B. n., Lee, D. W., Shah, N. N.
  2020; 8 (2)

- **Nivolumab in children and young adults with relapsed or refractory solid tumours or lymphoma (ADVL1412): a multicentre, open-label, single-arm, phase 1-2 trial.** *The Lancet. Oncology*
  Davis, K. L., Fox, E. n., Merchant, M. S., Reid, J. M., Kudgus, R. A., Liu, X. n., Minard, C. G., Voss, S. n., Berg, S. L., Weigel, B. J., Mackall, C. L.
  2020

- **Tuning the Antigen Density Requirement for CAR T Cell Activity.** *Cancer discovery*
  Majzner, R. G., Rietberg, S. P., Sotillo, E. n., Dong, R. n., Vachharajani, V. T., Labanieh, L. n., Myklebust, J. H., Kadapakkam, M. n., Weber, E. W., Tousley, A. M., Richards, R. M., Heitzeneder, S. n., Nguyen, et al
  2020

- **Disease detection methodologies in relapsed B-cell acute lymphoblastic leukemia: Opportunities for improvement.** *Pediatric blood & cancer*
  Shalabi, H. n., Yuan, C. M., Kulshreshtha, A. n., Dulau-Florea, A. n., Salem, D. n., Gupta, G. K., Roth, M. n., Filie, A. C., Yates, B. n., Delbrook, C. n., Derdak, J. n., Mackall, C. L., Lee, et al
  2020: e28149

- **Allogeneic Chimeric Antigen Receptor-Invariant Natural Killer T Cells Exert Both Direct and Indirect Antitumor Effects through Host CD8 T Cell Cross-Priming**
  Simonetta, F., Hirai, T., Lohmeyer, J. K., Maas-Bauer, K., Alvarez, M., Wenokur, A. S., Baker, J., Haile, S., Mackall, C. L., Negrin, R. S.
  AMER SOC HEMATOLOGY.2019

- **Identification of Two CAR T-Cell Populations Associated with Complete Response or Progressive Disease in Adult Lymphoma Patients Treated with Axi-Cel**
  Good, Z., Spiegel, J. Y., Sahaf, B., Malipatlolla, M. B., Frank, M. J., Baird, J., Muffly, L. S., Claire, G. K., Craig, J., Kong, K. A., Bendall, S., Miklos, D. B., Mackall, et al
  AMER SOC HEMATOLOGY.2019

- **Detectable Circulating Tumor DNA 28 Days after the CD19 CAR T-Cell Therapy, Axicabtagene Ciloleucel, Is Associated with Poor Outcomes in Patients with Diffuse Large B-Cell Lymphoma**
  Frank, M. J., Hossain, N., Bukhari, A., Dean, E., Spiegel, J. Y., Claire, G. K., Kirsch, I. M., Jacob, A. P., Mullins, C. D., Lee, L., Kong, K. A., Craig, J., Mackall, et al
  AMER SOC HEMATOLOGY.2019

- **Phase I Trial Using CD19/CD22 Bispecific CAR T Cells in Pediatric and Adult Acute Lymphoblastic Leukemia (ALL)**
  Schultz, L. M., Muffly, L. S., Spiegel, J. Y., Ramakrishna, S., Hossain, N., Baggott, C., Sahaf, B., Patel, S., Craig, J., Yoon, J., Kadapakkam, M., Majzner, R. G., Frank, et al
  AMER SOC HEMATOLOGY.2019

- **Infectious Complications Associated with CAR T-Cell Therapy**
  Mikkilineni, L., Shahani, S., Yates, B., Steinberg, S. M., Palmore, T., Nussenblatt, V., Lee, D. W., Kaplan, R. N., Mackall, C. L., Fry, T. J., Gea-Banacloche, J., Jerussi, T., Kochenderfer, et al
  AMER SOC HEMATOLOGY.2019

- **Identification of Dual Positive CD19+/CD3+T Cells in an Apheresis Product Undergoing Chimeric Antigen Receptor (CAR) Transduction**
  Schultz, L. M., Patel, S., Ramakrishna, S., Bertaina, A., Bhatia, N., Oak, J., Majzner, R. G., Baggott, C., Davis, K. L., Mackall, C. L., Feldman, S. A.
  AMER SOC HEMATOLOGY.2019

- **Autologous T cells with NY-ESO-1-specific T-cell receptor (GSK3377794) in HLA-A*02+previously-treated and -untreated advanced metastatic/unresectable synovial sarcoma: A master protocol study design**
  D'Angelo, S., Blay, J., Chow, W., Demetri, G., Thistlethwaite, F., Wagner, M., Loeb, D., Attia, S., Razak, A., Haanen, J., Hasan, A., Billiard, J., Pearce, et al
  BMC.2019

- **Impact of cytokine release syndrome on cardiac function following CD19 CAR-T cell therapy in children and young adults with acute lymphoblastic leukemia**
  Kulshrestha, A., Shalabi, H., Sachdev, V., Rosing, D., Sidenko, S., Mackall, C., Wiley, B., Lee, D., Shah, N.
  BMC.2019

- **Systemic and local immunity following adoptive transfer of NY-ESO-1 SPEAR T cells in synovial sarcoma.** *Journal for immunotherapy of cancer*
  Ramachandran, I., Lowther, D. E., Dryer-Minnerly, R., Wang, R., Fayngerts, S., Nunez, D., Betts, G., Bath, N., Tipping, A. J., Melchiori, L., Navenot, J., Glod, J., Mackall, et al
  2019; 7 (1): 276

- **Clinical lessons learned from the first leg of the CAR T cell journey.** *Nature medicine*
  Majzner, R. G., Mackall, C. L.
  2019; 25 (9): 1341–55

- **Robust Selections of Various Hematopoietic Cell Fractions on the CliniMACS Plus Instrument.** *Clinical hematology international*
  Panch, S. R., Reddy, O. L., Li, K., Bikkani, T., Rao, A., Yarlagadda, S., Highfill, S., Fowler, D., Childs, R. W., Battiwalla, M., Barrett, J., Larochelle, A., Mackall, et al
  2019; 1 (3): 161-167

- **Next-generation CAR T cells designed to overcome tumor resistance**
  Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2019

- **Phase I CD22 CAR T-cell trial updates**
  Shah, N. N., Shalabi, H., Yates, B., Yuan, C., Qin, H., Ombrello, A., Wang, H., Hoffman, L., Minh Tran, Panch, S., Stetler-Stevenson, M., Jin, J., Mackall, C., et al
  AMER ASSOC CANCER RESEARCH.2019

- **Monitoring ctDNA in r/r DLBCL patients following the CAR T-cell therapy axicabtagene ciloleucel: Day 28 landmark analysis.**
  Frank, M., Hossain, N. M., Bukhari, A., Dean, E., Spiegel, J. Y., Claire, G. K., Kirsch, I., Jacob, A., Mullins, C. D., Lee, L., Kong, K. A., Craig, J. K., Mackall, et al
  AMER SOC CLINICAL ONCOLOGY.2019

- **CAR T Cells Targeting B7-H3, a Pan-Cancer Antigen, Demonstrate Potent Preclinical Activity Against Pediatric Solid Tumors and Brain Tumors** *CLINICAL CANCER RESEARCH*
  Majzner, R. G., Theruvath, J. L., Nellan, A., Heitzeneder, S., Cui, Y., Mount, C. W., Rietberg, S. P., Linde, M. H., Xu, P., Rota, C., Sotillo, E., Labanieh, L., Lee, et al
  2019; 25 (8): 2560–74

- **LOCALLY ADMINISTERED CART CELLS DEMONSTRATE MOST FAVORABLE ROUTE OF ADMINISTRATION IN A MODEL OF ATRT**
  Theruvath, J., Graef, C., Heitzeneder, S., Majzner, R., Labanieh, L., Mackall, C.
  OXFORD UNIV PRESS INC.2019: 94–95

- **Pharmacologic control of CAR-T cell function using dasatinib** *BLOOD ADVANCES*
  Weber, E. W., Lynn, R. C., Sotillo, E., Lattin, J., Xu, P., Mackall, C. L.
  2019; 3 (5): 711–17

- **Pharmacologic control of CAR-T cell function using dasatinib.** *Blood advances*
  Weber, E. W., Lynn, R. C., Sotillo, E., Lattin, J., Xu, P., Mackall, C. L.
  2019; 3 (5): 711–17

- **Disease Detection Methodologies in Acute Lymphoblastic Leukemia (ALL): Opportunities for Improvement**
  Shalabi, H., Yuan, C., Kulshreshtha, A., Dulau-Florea, A., Salem, D., Gupta, G., Yates, B., Delbrook, C., Derdak, J., Mackall, C. L., Lee, D. W., Fry, T. J., Wayne, et al
  ELSEVIER SCIENCE INC.2019

- **Driving CAR T cell translation forward** *SCIENCE TRANSLATIONAL MEDICINE*
  Schultz, L., Mackall, C.
  2019; 11 (481)

- **Driving CAR T cell translation forward.** *Science translational medicine*
  Schultz, L., Mackall, C.
  2019; 11 (481)

- **CAR T cell therapy: inroads to response and resistance** *NATURE REVIEWS IMMUNOLOGY*
  Brown, C. E., Mackall, C. L.
  2019; 19 (2): 73–74

- **Autologous Tcells transduced with the affinity enhanced NYESO-1c259TCR in patients with synovial sarcoma expressing low levels of the NYESO-1 antigen**
  Araujo, D., D'Angelo, S., Demetri, G., Druta, M., Glod, J., Chow, W., Tap, W., Senra, J., Abbott, R., Van Winkle, E., Chagin, K., Maroto, M., Norry, et al
  AMER ASSOC CANCER RESEARCH.2019

- **Comparison of pretreatment conditioning on efficacy in two cohorts of a pilot study of genetically engineered NY-ESO-1c259T-cells in patients with synovial sarcoma**
  D'Angelo, S. P., Araujo, D., Van Tine, B., Demetri, G., Dutra, M., Glod, J., Chow, W., Grupp, S., Razak, A., Tap, W., Wilky, B., Van Winkle, E., Norry, et al
  AMER ASSOC CANCER RESEARCH.2019

- **CAR T cells targeting B7-H3, a Pan-Cancer Antigen, Demonstrate Potent Preclinical Activity Against Pediatric Solid Tumors and Brain Tumors.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Majzner, R. G., Theruvath, J. L., Nellan, A., Heitzeneder, S., Cui, Y., Mount, C. W., Rietberg, S. P., Linde, M. H., Xu, P., Rota, C., Sotillo, E., Labanieh, L., Lee, et al
  2019

- **CAR T cell therapy: inroads to response and resistance.** *Nature reviews. Immunology*
  Brown, C. E., Mackall, C. L.
  2019

- **Effect of Cryopreservation on Autologous Chimeric Antigen Receptor T Cell Characteristics.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Panch, S. R., Srivastava, S. K., Elavia, N. n., McManus, A. n., Liu, S. n., Jin, P. n., Highfill, S. L., Li, X. n., Dagur, P. n., Kochenderfer, J. n., Fry, T. J., Mackall, C. L., Lee, et al
  2019

- **c-Jun overexpression in CAR T cells induces exhaustion resistance.** *Nature*
  Lynn, R. C., Weber, E. W., Sotillo, E. n., Gennert, D. n., Xu, P. n., Good, Z. n., Anbunathan, H. n., Lattin, J. n., Jones, R. n., Tieu, V. n., Nagaraja, S. n., Granja, J. n., de Bourcy, et al
  2019

- **Circulating DNA for Molecular Response Prediction, Characterization of Resistance Mechanisms and Quantification of CAR T-Cells during Axicabtagene Ciloleucel Therapy** *American Society of Hematology*
  Sworder, B., Kurtz, D. M., Macaulay, C., Frank, M. J., Alig, S., Garofalo, A., Sahaf, B., Esfahani, M. S., Spiegel, J. Y., Oak, J., Beygi, S., Jin, M. C., Chabon, et al
  2019

- **Pregnancy-Associated Plasma Protein-A (PAPP-A) in Ewing Sarcoma: Role in Tumor Growth and Immune Evasion.** *Journal of the National Cancer Institute*
  Heitzeneder, S. n., Sotillo, E. n., Shern, J. F., Sindiri, S. n., Xu, P. n., Jones, R. n., Pollak, M. n., Noer, P. R., Lorette, J. n., Fazli, L. n., Alag, A. n., Meltzer, P. n., Lau, et al
  2019

- **Chimeric antigen receptor (CAR) T therapies for the treatment of hematologic malignancies: clinical perspective and significance.** *Journal for immunotherapy of cancer*
  Boyiadzis, M. M., Dhodapkar, M. V., Brentjens, R. J., Kochenderfer, J. N., Neelapu, S. S., Maus, M. V., Porter, D. L., Maloney, D. G., Grupp, S. A., Mackall, C. L., June, C. H., Bishop, M. R.
  2018; 6 (1): 137

- **Chimeric antigen receptor (CAR) T therapies for the treatment of hematologic malignancies: clinical perspective and significance** *JOURNAL FOR IMMUNOTHERAPY OF CANCER*
  Boyiadzis, M. M., Dhodapkar, M. V., Brentjens, R. J., Kochenderfer, J. N., Neelapu, S. S., Maus, M. V., Porter, D. L., Maloney, D. G., Grupp, S. A., Mackall, C. L., June, C. H., Bishop, M. R.
  2018; 6

- **Target Antigen Downregulation and Other Mechanisms of Failure after Axicabtagene Ciloleucel (CAR19) Therapy**
  Oak, J., Spiegel, J. Y., Sahaf, B., Natkunam, Y., Long, S. R., Hossain, N., Mackall, C. L., Kong, K. A., Miklos, D. B.
  AMER SOC HEMATOLOGY.2018

- **Low CD19 Antigen Density Diminishes Efficacy of CD19 CAR T Cells and Can be Overcome By Rational Redesign of CAR Signaling Domains**
  Majzner, R. G., Rietberg, S. P., Labanieh, L., Sotillo, E., Weber, E. W., Lynn, R. C., Theruvath, J. L., Yuan, C. M., Xu, P., Nguyen, S. M., Shah, N. N., Stetler-Stevenson, M., Fry, et al
  AMER SOC HEMATOLOGY.2018

- **1 Study of CD19/CD22 Bispecific Chimeric Antigen Receptor (CAR) Therapy in Children and Young Adults with B Cell Acute Lymphoblastic Leukemia (ALL)**
  Schultz, L. M., Davis, K. L., Baggott, C., Chaudry, C., Marcy, A., Mavroukakis, S., Sahaf, B., Kong, K. A., Muffly, L. S., Kim, S., Meyer, E. H., Fry, T. J., Qin, et al
  AMER SOC HEMATOLOGY.2018

- **Phase I Experience with a Bi-Specific CAR Targeting CD19 and CD22 in Adults with B-Cell Malignancies**
  Hossain, N., Sahaf, B., Abramian, M., Spiegel, J. Y., Kong, K., Kim, S., Mavroukakis, S., Oak, J., Natkunam, Y., Meyer, E. H., Frank, M. J., Feldman, S. A., Long, et al
  AMER SOC HEMATOLOGY.2018

- **Elevated Axicabtagene Ciloleucel (CAR-19) Expansion By Immunophenotyping Is Associated with Toxicity in Diffuse Large B-Cell Lymphoma**
  Spiegel, J. Y., Sahaf, B., Hossain, N., Frank, M. J., Claire, G., Abramian, M., Latchford, T., Villa, B., Cancilla, J., Oak, J., Natkunam, Y., Long, S. R., Arai, et al
  AMER SOC HEMATOLOGY.2018

- **Tumor Antigen Escape from CAR T-cell Therapy** *CANCER DISCOVERY*
  Majzner, R. G., Mackall, C. L.
  2018; 8 (10): 1219–26

- **GD2-directed chimeric antigen receptor T cells mediate potent antitumor effect and cure in xenograft models of diffuse intrinsic pontine glioma**
  Majzner, R. G., Mount, C., Sundaresh, S., Arnold, E., Kadapakkam, M., Labanieh, L., Woo, P., Monje, M., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2018

- **Systematic Evaluation of Neurotoxicity in Children and Young Adults Undergoing CD22 Chimeric Antigen Receptor T-Cell Therapy** *JOURNAL OF IMMUNOTHERAPY*
  Shalabi, H., Wolters, P. L., Martin, S., Toledo-Tamula, M., Roderick, M., Struemph, K., Kane, E., Yates, B., Delbrook, C., Mackall, C. L., Lee, D. W., Fry, T. J., Shah, et al
  2018; 41 (7): 350–58

- **Screening Clinical Cell Products for Replication Competent Retrovirus: The National Gene Vector Biorepository Experience** *MOLECULAR THERAPY-METHODS & CLINICAL DEVELOPMENT*
  Cornetta, K., Duffy, L., Feldman, S. A., Mackall, C. L., Davila, M. L., Curran, K. J., Junghans, R. P., Tang, J., Kochenderfer, J. N., O'Cearbhaill, R., Archer, G., Kiem, H., Shah, et al
  2018; 10: 371–78

- **Tumor Antigen Escape from CAR T-cell Therapy.** *Cancer discovery*
  Majzner, R. G., Mackall, C. L.

2018

- **Antitumor Activity Associated with Prolonged Persistence of Adoptively Transferred NY-ESO-1(c259) T Cells in Synovial Sarcoma** *CANCER DISCOVERY*
  D'Angelo, S. P., Melchiori, L., Merchant, M. S., Bernstein, D., Glod, J., Kaplan, R., Grupp, S., Tap, W. D., Chagin, K., Binder, G. K., Basu, S., Lowther, D. E., Wang, et al
  2018; 8 (8): 944–57

- **Anti-GD2 chimeric antigen receptor T cells as a potent immunotherapy regimen in xenograft models of histone 3 K27M mutant diffuse midline glioma**
  Mount, C. W., Majzner, R., Sundaresh, S., Arnold, E. P., Kadapakkam, M., Haile, S., Labanieh, L., Woo, P., Rietberg, S. P., Vogel, H., Monje, M., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2018

- **Precise regulation of CAR signaling prevents and reverses CAR T cell exhaustion**
  Weber, E. W., Lynn, R. C., Malipatlolla, M., Sotillo, E., Xu, P., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2018

- **Engineering AP1 to combat CAR T cell exhaustion**
  Lynn, R. C., Weber, E. W., Gennert, D., Sotillo, E., Jones, R., Xu, P., Satpathy, A., Chang, H. Y., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2018

- **Fludarabine and neurotoxicity in engineered T-cell therapy** *GENE THERAPY*
  Lowe, K. L., Mackall, C. L., Norry, E., Amado, R., Jakobsen, B. K., Binder, G.
  2018; 25 (3): 176–91

- **Programming CAR-T cells to kill cancer.** *Nature biomedical engineering*
  Labanieh, L., Majzner, R. G., Mackall, C. L.
  2018; 2 (6): 377-391

- **Programming CAR-T cells to kill cancer** *NATURE BIOMEDICAL ENGINEERING*
  Labanieh, L., Majzner, R. G., Mackall, C. L.
  2018; 2 (6): 377–91

- **CAR T CELLS TARGETING B7-H3, A PAN-CANCER ANTIGEN, DEMONSTRATE POTENT PRECLINICAL ACTIVITY AGAINST PEDIATRIC SOLID TUMORS AND BRAIN TUMORS**
  Majzner, R., Nellan, A., Heitzeneder, S., Theruvath, J., Mackall, C.
  WILEY.2018

- **B7-H3 CAR T CELLS MEDIATE IN VITRO AND IN VIVO ACTIVITY AGAINST NEUROBLASTOMA XENOGRAFTS**
  Kadapakkam, M., Majzner, R., Xu, P., Mackall, C.
  WILEY.2018

- **CHECKPOINT MOLECULE B7-H3 IS HIGHLY EXPRESSED ON ATYPICAL RHABDOID TERATOID TUMOR (ATRT) AND IS A PROMISING CANDIDATE FOR CAR T CELL THERAPY**
  Theruvath, J., Graef, C., Heitzeneder, S., Majzner, B., Mitra, S., Cheshier, S. H., Mackall, C.
  OXFORD UNIV PRESS INC.2018: 33

- **ANTI-GD2 CHIMERIC ANTIGEN RECEPTOR T CELLS AS A POTENT IMMUNOTHERAPY REGIMEN IN XENOGRAFT MODELS OF HISTONE 3 K27M MUTANT DIFFUSE MIDLINE GLIOMA**
  Mount, C., Majzner, R., Sundaresh, S., Arnold, E., Kadapakkam, M., Haile, S., Labanieh, L., Woo, P., Rietberg, S., Vogel, H., Monje, M., Mackall, C.
  OXFORD UNIV PRESS INC.2018: 56

- **Potent antitumor efficacy of anti-GD2 CAR T cells in H3-K27M(+) diffuse midline gliomas** *NATURE MEDICINE*
  Mount, C. W., Majzner, R. G., Sundaresh, S., Arnold, E. P., Kadapakkam, M., Haile, S., Labanieh, L., Hulleman, E., Woo, P. J., Rietberg, S. P., Vogel, H., Monje, M., Mackall, et al
  2018; 24 (5): 572-+

- **Engineering a designer immunotherapy Tailoring cytokine selectivity by engineering receptor-ligand pairs circumvents toxicity** *SCIENCE*
  Mackall, C. L.
  2018; 359 (6379): 990–91

- **Neurotoxicity Associated with a High-Affinity GD2 CAR-Letter.** *Cancer immunology research*
  Majzner, R. G., Weber, E. W., Lynn, R. C., Xu, P. n., Mackall, C. L.
  2018; 6 (4): 494–95

- **Potent antitumor efficacy of anti-GD2 CAR T cells in H3-K27M+ diffuse midline gliomas.** *Nature medicine*
  Mount, C. W., Majzner, R. G., Sundaresh, S. n., Arnold, E. P., Kadapakkam, M. n., Haile, S. n., Labanieh, L. n., Hulleman, E. n., Woo, P. J., Rietberg, S. P., Vogel, H. n., Monje, M. n., Mackall, et al
  2018

- **CHECKPOINT MOLECULE B7-H3 IS HIGHLY EXPRESSED ON MEDULLOBLASTOMA AND PROVES TO BE A PROMISING CANDIDATE FOR CAR T CELL IMMUNOTHERAPY**
  Theruvath, J., Heitzeneder, S., Majzner, R., Cui, K., Nellan, A., Graef, C., Cheshier, S. H., Mackall, C., Mitra, S. S.
  OXFORD UNIV PRESS INC.2017: 122

- **GD2-DIRECTED CHIMERIC ANTIGEN RECEPTOR T CELLS AS A POTENT IMMUNOTHERAPY REGIMEN IN XENOGRAFT MODELS OF DIFFUSE INTRINSIC PONTINE GLIOMA**
  Mount, C., Majzner, R., Sundaresh, S., Arnold, E., Kadapakkam, M., Monje-Deisseroth, M., Mackall, C.
  OXFORD UNIV PRESS INC.2017: 198

- **CHECKPOINT MOLECULE B7-H3 IS HIGHLY EXPRESSED ON MEDULLOBLASTOMA AND PROVES TO BE A PROMISING CANDIDATE FOR CAR T CELL IMMUNOTHERAPY**
  Theruvath, J., Heitzeneder, S., Majzner, R., Graef, C., Cui, K., Nellan, A., Cheshier, S. H., Mackall, C., Mitra, S.
  OXFORD UNIV PRESS INC.2017: 28–29

- **Open label, non-randomized, multi-cohort pilot study of genetically engineered NY-ESO-1 specific NY-ESO-1 (c259)t. in HLA-A2(+) patients with synovial sarcoma (NCT01343043).**
  Mackall, C., Tap, W. D., Glod, J., Druta, M., Chow, W., Araujo, D. M., Grupp, S. A., Van Tine, B., Chagin, K., Van Winkle, E., Kari, G., Trivedi, T., Norry, et al
  AMER SOC CLINICAL ONCOLOGY.2017

- **Autologous lymphapheresis for the production of chimeric antigen receptor T cells.** *Transfusion*
  Allen, E. S., Stroncek, D. F., Ren, J., Eder, A. F., West, K. A., Fry, T. J., Lee, D. W., Mackall, C. L., Conry-Cantilena, C.
  2017; 57 (5): 1133-1141

- **Harnessing the Immunotherapy Revolution for the Treatment of Childhood Cancers** *CANCER CELL*
  Majzner, R. G., Heitzeneder, S., Mackall, C. L.
  2017; 31 (4): 476-485

- **Elutriated lymphocytes for manufacturing chimeric antigen receptor T cells** *JOURNAL OF TRANSLATIONAL MEDICINE*
  Stroncek, D. F., Lee, D. W., Ren, J., Sabatino, M., Highfill, S., Khuu, H., Shah, N. N., Kaplan, R. N., Fry, T. J., Mackall, C. L.
  2017; 15

- **CNS Endothelial Cell Activation Emerges as a Driver of CAR T Cell-Associated Neurotoxicity.** *Cancer discovery*
  Mackall, C. L., Miklos, D. B.
  2017; 7 (12): 1371–73

- **Assessment of programmed death-ligand 1 expression and tumor-associated immune cells in pediatric cancer tissues.** *Cancer*
  Majzner, R. G., Simon, J. S., Grosso, J. F., Martinez, D. n., Pawel, B. R., Santi, M. n., Merchant, M. S., Geoerger, B. n., Hezam, I. n., Marty, V. n., Vielh, P. n., Daugaard, M. n., Sorensen, et al
  2017

- **Tumor Antigen and Receptor Densities Regulate Efficacy of a Chimeric Antigen Receptor Targeting Anaplastic Lymphoma Kinase.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Walker, A. J., Majzner, R. G., Zhang, L. n., Wanhainen, K. n., Long, A. H., Nguyen, S. M., Lopomo, P. n., Vigny, M. n., Fry, T. J., Orentas, R. J., Mackall, C. L.
  2017

- **Identification of GPC2 as an Oncoprotein and Candidate Immunotherapeutic Target in High-Risk Neuroblastoma.** *Cancer cell*
  Bosse, K. R., Raman, P. n., Zhu, Z. n., Lane, M. n., Martinez, D. n., Heitzeneder, S. n., Rathi, K. S., Kendsersky, N. M., Randall, M. n., Donovan, L. n., Morrissy, S. n., Sussman, R. T., Zhelev, et al
  2017; 32 (3): 295–309.e12

- **CD22-targeted CAR T cells induce remission in B-ALL that is naive or resistant to CD19-targeted CAR immunotherapy.** *Nature medicine*
  Fry, T. J., Shah, N. N., Orentas, R. J., Stetler-Stevenson, M. n., Yuan, C. M., Ramakrishna, S. n., Wolters, P. n., Martin, S. n., Delbrook, C. n., Yates, B. n., Shalabi, H. n., Fountaine, T. J., Shern, et al
  2017

- **New developments in immunotherapy for pediatric solid tumors.** *Current opinion in pediatrics*
  Schultz, L. M., Majzner, R. n., Davis, K. L., Mackall, C. n.
  2017

- **Immunotherapy for acute lymphoblastic leukemia: from famine to feast** *BLOOD ADVANCES*
  Davis, K. L., Mackall, C. L.
  2016; 1 (3): 265–69

- **A Prospective Evaluation of Neurocognitive Function and Neurologic Symptoms in Pediatric and Young Adult Patients with Relapsed/ Refractory Acute Lymphoblastic Leukemia (ALL) Undergoing Anti-CD22 Chimeric Antigen Receptor Therapy**
  Shalabi, H., Wolters, P. L., Martin, S., Delbrook, C., Yates, B., Lee, D. W., Mackall, C. L., Fry, T. J., Shah, N. N.
  AMER SOC HEMATOLOGY.2016

- **Tocilizumab-Refractory Cytokine Release Syndrome (CRS) Triggered By Chimeric Antigen Receptor (CAR)-Transduced T Cells May Have Distinct Cytokine Profiles Compared to Typical CRS**
  Ishii, K., Shalabi, H., Yates, B., Delbrook, C., Mackall, C. L., Fry, T. J., Shah, N. N.
  AMER SOC HEMATOLOGY.2016

- **Long-Term Outcomes Following CD19 CAR T Cell Therapy for B-ALL Are Superior in Patients Receiving a Fludarabine/Cyclophosphamide Preparative Regimen and Post-CAR Hematopoietic Stem Cell Transplantation**
  Lee, D. W., Stetler-Stevenson, M., Yuan, C. M., Shah, N. N., Delbrook, C., Yates, B., Zhang, H., Zhang, L., Kochenderfer, J. N., Rosenberg, S. A., Fry, T. J., Stroncek, D., Mackall, et al
  AMER SOC HEMATOLOGY.2016

- **Minimal Residual Disease Negative Complete Remissions Following Anti-CD22 Chimeric Antigen Receptor (CAR) in Children and Young Adults with Relapsed/Refractory Acute Lymphoblastic Leukemia (ALL)**
  Shah, N. N., Stetler-Stevenson, M., Yuan, C. M., Shalabi, H., Yates, B., Delbrook, C., Zhang, L., Lee, D. W., Stroncek, D., Mackall, C. L., Fry, T. J.
  AMER SOC HEMATOLOGY.2016

- **Reduction of MDSCs with All-trans Retinoic Acid Improves CAR Therapy Efficacy for Sarcomas** *CANCER IMMUNOLOGY RESEARCH*
  Long, A. H., Highfill, S. L., Cui, Y., Smith, J. P., Walker, A. J., Ramakrishna, S., El-Etriby, R., Galli, S., Tsokos, M. G., Orentas, R. J., Mackall, C. L.
  2016; 4 (10): 869-880

- **Induction of Immune Response after Allogeneic Wilms' Tumor 1 Dendritic Cell Vaccination and Donor Lymphocyte Infusion in Patients with Hematologic Malignancies and Post-Transplantation Relapse.** *Biology of blood and marrow transplantation*
  Shah, N. N., Loeb, D. M., Khuu, H., Stroncek, D., Ariyo, T., Raffeld, M., Delbrook, C., Mackall, C. L., Wayne, A. S., Fry, T. J.
  2016

- **Impact of Two Measures of Micrometastatic Disease on Clinical Outcomes in Patients with Newly Diagnosed Ewing Sarcoma: A Report from the Children's Oncology Group.** *Clinical cancer research*
  Vo, K. T., Edwards, J. V., Epling, C. L., Sinclair, E., Hawkins, D. S., Grier, H. E., Janeway, K. A., Barnette, P., McIlvaine, E., Krailo, M. D., Barkauskas, D. A., Matthay, K. K., Womer, et al
  2016; 22 (14): 3643-3650

- **Adjuvant Immunotherapy to Improve Outcome in High-Risk Pediatric Sarcomas.** *Clinical cancer research*
  Merchant, M. S., Bernstein, D., Amoako, M., Baird, K., Fleisher, T. A., Morre, M., Steinberg, S. M., Sabatino, M., Stroncek, D. F., Venkatasan, A. M., Wood, B. J., Wright, M., Zhang, et al
  2016; 22 (13): 3182-3191

- **CD19 CAR immune pressure induces B-precursor acute lymphoblastic leukaemia lineage switch exposing inherent leukaemic plasticity** *NATURE COMMUNICATIONS*
  Jacoby, E., Nguyen, S. M., Fountaine, T. J., Welp, K., Gryder, B., Qin, H., Yang, Y., Chien, C. D., Seif, A. E., Lei, H., Song, Y. K., Khan, J., Lee, et al
  2016; 7

- **Myeloid cells in peripheral blood mononuclear cell concentrates inhibit the expansion of chimeric antigen receptor T cells** *CYTOTHERAPY*
  Stroncek, D. F., Ren, J., Lee, D. W., Minh Tran, M., Frodigh, S. E., Sabatino, M., Khuu, H., Merchant, M. S., Mackall, C. L.

2016; 18 (7): 893-901

- **Current state of pediatric sarcoma biology and opportunities for future discovery: A report from the sarcoma translational research workshop.** *Cancer genetics*
  Hingorani, P., Janeway, K., Crompton, B. D., Kadoch, C., Mackall, C. L., Khan, J., Shern, J. F., Schiffman, J., Mirabello, L., Savage, S. A., Ladanyi, M., Meltzer, P., Bult, et al
  2016; 209 (5): 182-194

- **Activation of Hematopoietic Stem/Progenitor Cells Promotes Immunosuppression Within the Pre-metastatic Niche.** *Cancer research*
  Giles, A. J., Reid, C. M., Evans, J. D., Murgai, M., Vicioso, Y., Highfill, S. L., Kasai, M., Vahdat, L., Mackall, C. L., Lyden, D., Wexler, L., Kaplan, R. N.
  2016; 76 (6): 1335-1347

- **Phase I Clinical Trial of Ipilimumab in Pediatric Patients with Advanced Solid Tumors** *CLINICAL CANCER RESEARCH*
  Merchant, M. S., Wright, M., Baird, K., Wexler, L. H., Rodriguez-Galindo, C., Bernstein, D., Delbrook, C., Lodish, M., Bishop, R., Wolchok, J. D., Streicher, H., Mackall, C. L.
  2016; 22 (6): 1364-1370

- **Neuroblastoma.** *Nature reviews. Disease primers*
  Matthay, K. K., Maris, J. M., Schleiermacher, G., Nakagawara, A., Mackall, C. L., Diller, L., Weiss, W. A.
  2016; 2: 16078-?

- **Convergence of Acquired Mutations and Alternative Splicing of CD19 Enables Resistance to CART-19 Immunotherapy** *CANCER DISCOVERY*
  Sotillo, E., Barrett, D. M., Black, K. L., Bagashev, A., Oldridge, D., Wu, G., Sussman, R., Lanauze, C., Ruella, M., Gazzara, M. R., Martinez, N. M., Harrington, C. T., Chung, et al
  2015; 5 (12): 1282-1295

- **4-1BB costimulation ameliorates T cell exhaustion induced by tonic signaling of chimeric antigen receptors** *NATURE MEDICINE*
  Long, A. H., Haso, W. M., Shern, J. F., Wanhainen, K. M., Murgai, M., Ingaramo, M., Smith, J. P., Walker, A. J., Kohler, M. E., Venkateshwara, V. R., Kaplan, R. N., Patterson, G. H., Fry, et al
  2015; 21 (6): 581-590

- **Thymic expression of a T-cell receptor targeting a tumor-associated antigen coexpressed in the thymus induces T-ALL** *BLOOD*
  Cui, Y., Onozawa, M., Garber, H. R., Samsel, L., Wang, Z., McCoy, J. P., Burkett, S., Wu, X., Aplan, P. D., Mackall, C. L.
  2015; 125 (19): 2958-2967

- **Going Back to Class I: MHC and Immunotherapies for Childhood Cancer** *PEDIATRIC BLOOD & CANCER*
  Haworth, K. B., Leddon, J. L., Chen, C., Horwitz, E. M., Mackall, C. L., Cripe, T. P.
  2015; 62 (4): 571-576

- **T cells expressing CD19 chimeric antigen receptors for acute lymphoblastic leukaemia in children and young adults: a phase 1 dose-escalation trial** *LANCET*
  Lee, D. W., Kochenderfer, J. N., Stetler-Stevenson, M., Cui, Y. K., Delbrook, C., Feldman, S. A., Fry, T. J., Orentas, R., Sabatino, M., Shah, N. N., Steinberg, S. M., Stroncek, D., Tschemia, et al
  2015; 385 (9967): 517-528

- **Acute GVHD in patients receiving IL-15/4-1BBL activated NK cells following T-cell-depleted stem cell transplantation** *BLOOD*
  Shah, N. N., Baird, K., Delbrook, C. P., Fleisher, T. A., Kohler, M. E., Rampertaap, S., Lemberg, K., Hurley, C. K., Kleiner, D. E., Merchant, M. S., Pittaluga, S., Sabatino, M., Stroncek, et al
  2015; 125 (5): 784-792

- **Emerging Immunotherapies for Cancer and Their Potential for Application in Pediatric Oncology.** *Critical reviews in oncogenesis*
  Orentas, R. J., Mackall, C. L.
  2015; 20 (3-4): 315-327

- **Immune-based therapies for childhood cancer** *NATURE REVIEWS CLINICAL ONCOLOGY*
  Mackall, C. L., Merchant, M. S., Fry, T. J.
  2014; 11 (12): 693-703

- **T-Cell Immunotherapy: Looking Forward** *MOLECULAR THERAPY*
  Corrigan-Curay, J., Kiem, H., Baltimore, D., O'Reilly, M., Brentjens, R. J., Cooper, L., Forman, S., Gottschalk, S., Greenberg, P., Junghans, R., Heslop, H., Jensen, M., Mackall, et al

2014; 22 (9): 1564-1574

- **Current concepts in the diagnosis and management of cytokine release syndrome** *BLOOD*
  Lee, D. W., Gardner, R., Porter, D. L., Louis, C. U., Ahmed, N., Jensen, M., Grupp, S. A., Mackall, C. L.
  2014; 124 (2): 188-195
- **Disruption of CXCR2-Mediated MDSC Tumor Trafficking Enhances Anti-PD1 Efficacy** *SCIENCE TRANSLATIONAL MEDICINE*
  Highfill, S. L., Cui, Y., Giles, A. J., Smith, J. P., Zhang, H., Morse, E., Kaplan, R. N., Mackall, C. L.
  2014; 6 (237)
- **Introduction to the series of reviews on "Antibody Derivatives as New Therapeutics for Hematologic Malignancies"** *BLOOD*
  Mackall, C. L.
  2014; 123 (15): 2283-2284
- **Mass spectrometry in cancer biomarker research: a case for immunodepletion of abundant blood-derived proteins from clinical tissue specimens** *BIOMARKERS IN MEDICINE*
  Prieto, D. A., Johann, D. J., Wei, B., Ye, X., Chan, K. C., Nissley, D. V., Simpson, R. M., Citrin, D. E., Mackall, C. L., Linehan, W. M., Blonder, J.
  2014; 8 (2): 269-286
- **Bioinformatic description of immunotherapy targets for pediatric T-cell leukemia and the impact of normal gene sets used for comparison.** *Frontiers in oncology*
  Orentas, R. J., Nordlund, J., He, J., Sindiri, S., Mackall, C., Fry, T. J., Khan, J.
  2014; 4: 134-?
- **T-cell adoptive immunotherapy for acute lymphoblastic leukemia** *HEMATOLOGY-AMERICAN SOCIETY OF HEMATOLOGY EDUCATION PROGRAM*
  Fry, T. J., Mackall, C. L.
  2013: 348-353
- **Simplified process for the production of anti-CD19-CAR-engineered T cells** *CYTOTHERAPY*
  Tumaini, B., Lee, D. W., Lin, T., Castiello, L., Stroncek, D. F., Mackall, C., Wayne, A., Sabatino, M.
  2013; 15 (11): 1406-1415
- **A Pan-Inhibitor of DASH Family Enzymes Induces Immune-mediated Regression of Murine Sarcoma and Is a Potent Adjuvant to Dendritic Cell Vaccination and Adoptive T-cell Therapy** *JOURNAL OF IMMUNOTHERAPY*
  Duncan, B. B., Highfill, S. L., Qin, H., Bouchkouj, N., Larabee, S., Zhao, P., Woznica, I., Liu, Y., Li, Y., Wu, W., Lai, J. H., Jones, B., Mackall, et al
  2013; 36 (8): 400-411
- **Q&A: Crystal Mackall, John Maris on Pediatrics** *CANCER DISCOVERY*
  Mackall, C., Maris, J.
  2013; 3 (9): 961-961
- **Fibrocytes represent a novel MDSC subset circulating in patients with metastatic cancer** *BLOOD*
  Zhang, H., Maric, I., Diprima, M. J., Khan, J., Orentas, R. J., Kaplan, R. N., Mackall, C. L.
  2013; 122 (7): 1105-1113
- **Highlights of the Third International Conference on Immunotherapy in Pediatric Oncology** *PEDIATRIC HEMATOLOGY AND ONCOLOGY*
  Brehm, C., Huenecke, S., Pfirrmann, V., Rossig, C., Mackall, C. L., Bollard, C. M., Gottschalk, S., Schlegel, P. G., Klingebiel, T., Bader, P.
  2013; 30 (5): 349-366
- **Soluble IL7R alpha potentiates IL-7 bioactivity and promotes autoimmunity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Lundstrom, W., Highfill, S., Walsh, S. T., Beq, S., Morse, E., Kockum, I., Alfredsson, L., Olsson, T., Hillert, J., Mackall, C. L.
  2013; 110 (19): E1761-E1770
- **Anti-CD22-chimeric antigen receptors targeting B-cell precursor acute lymphoblastic leukemia** *BLOOD*
  Haso, W., Lee, D. W., Shah, N. N., Stetler-Stevenson, M., Yuan, C. M., Pastan, I. H., Dimitrov, D. S., Morgan, R. A., FitzGerald, D. J., Barrett, D. M., Wayne, A. S., Mackall, C. L., Orentas, et al
  2013; 121 (7): 1165-1174
- **Enhancing Immune Reconstitution: From Bench to Bedside** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*

van Den Brinki, M., Leen, A. M., Baird, K., Merchant, M., Mackall, C., Bollard, C. M.
2013; 19 (1): S79-S83

- **Enhancing immune reconstitution: from bench to bedside.** *Biology of blood and marrow transplantation*
  van den Brink, M., Leen, A. M., Baird, K., Merchant, M., Mackall, C., Bollard, C. M.
  2013; 19 (1): S79-83

- **Phase I Trial and Pharmacokinetic Study of Lexatumumab in Pediatric Patients With Solid Tumors** *JOURNAL OF CLINICAL ONCOLOGY*
  Merchant, M. S., Geller, J. I., Baird, K., Chou, A. J., Galli, S., Charles, A., Amaoko, M., Rhee, E. H., Price, A., Wexler, L. H., Meyers, P. A., Widemann, B. C., Tsokos, et al
  2012; 30 (33): 4141-4147

- **IL-7 in human health and disease** *SEMINARS IN IMMUNOLOGY*
  Lundstroem, W., Fewkes, N. M., Mackall, C. L.
  2012; 24 (3): 218-224

- **The Future Is Now: Chimeric Antigen Receptors as New Targeted Therapies for Childhood Cancer** *CLINICAL CANCER RESEARCH*
  Lee, D. W., Barrett, D. M., Mackall, C., Orentas, R., Grupp, S. A.
  2012; 18 (10): 2780-2790

- **Reduced-Intensity Allogeneic Stem Cell Transplantation in Children and Young Adults with Ultrahigh-Risk Pediatric Sarcomas** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Baird, K., Fry, T. J., Steinberg, S. M., Bishop, M. R., Fowler, D. H., Delbrook, C. P., Humphrey, J. L., Rager, A., Richards, K., Wayne, A. S., Mackall, C. L.
  2012; 18 (5): 698-707

- **Immunotherapy targets in pediatric cancer.** *Frontiers in oncology*
  Orentas, R. J., Lee, D. W., Mackall, C.
  2012; 2: 3-?

- **Identification of cell surface proteins as potential immunotherapy targets in 12 pediatric cancers.** *Frontiers in oncology*
  Orentas, R. J., Yang, J. J., Wen, X., Wei, J. S., Mackall, C. L., Khan, J.
  2012; 2: 194-?

- **Murine Rhabdomyosarcoma Is Immunogenic and Responsive to T-Cell-Based Immunotherapy** *PEDIATRIC BLOOD & CANCER*
  Meadors, J. L., Cui, Y., Chen, Q., Song, Y. K., Khan, J., Merlino, G., Tsokos, M., Orentas, R. J., Mackall, C. L.
  2011; 57 (6): 921-929

- **Killing of Resistant Cancer Cells with Low Bak by a Combination of an Antimesothelin Immunotoxin and a TRAIL Receptor 2 Agonist Antibody** *CLINICAL CANCER RESEARCH*
  Du, X., Xiang, L., Mackall, C., Pastan, I.
  2011; 17 (18): 5926-5934

- **Highlights of the Second International Conference on "Immunotherapy in Pediatric Oncology"** *PEDIATRIC HEMATOLOGY AND ONCOLOGY*
  Capitini, C. M., Gottschalk, S., Brenner, M., Cooper, L. J., Handgretinger, R., Mackall, C. L.
  2011; 28 (6): 459-U21

- **Harnessing the biology of IL-7 for therapeutic application** *NATURE REVIEWS IMMUNOLOGY*
  Mackall, C. L., Fry, T. J., Gress, R. E.
  2011; 11 (5): 330-342

- **Activating Signals Dominate Inhibitory Signals in CD137L/IL-15 Activated Natural Killer Cells** *JOURNAL OF IMMUNOTHERAPY*
  Zhang, H., Cui, Y., Voong, N., Sabatino, M., Stroncek, D. F., Morisot, S., Civin, C. I., Wayne, A. S., Levine, B. L., Mackall, C. L.
  2011; 34 (2): 187-195

- **Tumor Regression in Patients With Metastatic Synovial Cell Sarcoma and Melanoma Using Genetically Engineered Lymphocytes Reactive With NY-ESO-1** *JOURNAL OF CLINICAL ONCOLOGY*
  Robbins, P. F., Morgan, R. A., Feldman, S. A., Yang, J. C., Sherry, R. M., Dudley, M. E., Wunderlich, J. R., Nahvi, A. V., Helman, L. J., Mackall, C. L., Kammula, U. S., Hughes, M. S., Restifo, et al
  2011; 29 (7): 917-924

- **In search of targeted therapies for childhood cancer.** *Frontiers in oncology*
  Mackall, C. L.
  2011; 1: 18-?

- **Novel Gamma-Chain Cytokines as Candidate Immune Modulators in Immune Therapies for Cancer** *CANCER JOURNAL*
  Fewkes, N. M., Mackall, C. L.
  2010; 16 (4): 392-398

- **NCI First International Workshop on the Biology, Prevention, and Treatment of Relapse After Allogeneic Hematopoietic Stem Cell Transplantation: Report from the Committee on the Biological Considerations of Hematological Relapse following Allogeneic Stem Cell Transplantation Unrelated to Graft-versus-Tumor Effects: State of the Science** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Cairo, M. S., Jordan, C. T., Maley, C. C., Chao, C., Melnick, A., Armstrong, S. A., Shlomchik, W., Molldrem, J., Ferrone, S., Mackall, C., Zitvogel, L., Bishop, M. R., Giralt, et al
  2010; 16 (6): 709-728

- **Pharmacologic modulation of niche accessibility via tyrosine kinase inhibition enhances marrow and thymic engraftment after hematopoietic stem cell transplantation** *BLOOD*
  Fewkes, N. M., Krauss, A. C., Guimond, M., Meadors, J. L., Dobre, S., Mackall, C. L.
  2010; 115 (20): 4120-4129

- **In Vivo Role of Flt3 Ligand and Dendritic Cells in NK Cell Homeostasis** *JOURNAL OF IMMUNOLOGY*
  Guimond, M., Freud, A. G., Mao, H. C., Yu, J., Blaser, B. W., Leong, J. W., Vandeusen, J. B., Dorrance, A., Zhang, J., Mackall, C. L., Caligiuri, M. A.
  2010; 184 (6): 2769-2775

- **Immune-based therapeutics for pediatric cancer** *EXPERT OPINION ON BIOLOGICAL THERAPY*
  Capitini, C. M., Mackall, C. L., Wayne, A. S.
  2010; 10 (2): 163-178

- **T-cell-based Therapies for Malignancy and Infection in Childhood** *PEDIATRIC CLINICS OF NORTH AMERICA*
  Ahmed, N., Heslop, H. E., Mackall, C. L.
  2010; 57 (1): 83-96

- **Immunotherapy of childhood cancer: from biologic understanding to clinical application** *CURRENT OPINION IN PEDIATRICS*
  Wayne, A. S., Capitini, C. M., Mackall, C. L.
  2010; 22 (1): 2-11

- **Phase I Study of Recombinant Human Interleukin-7 Administration in Subjects with Refractory Malignancy** *CLINICAL CANCER RESEARCH*
  Sportes, C., Babb, R. R., Krumlauf, M. C., Hakim, F. T., Steinberg, S. M., Chow, C. K., Brown, M. R., Fleisher, T. A., Noel, P., Maric, I., Stetler-Stevenson, M., Engel, J., Buffet, et al
  2010; 16 (2): 727-735

- **Randomized Trial and Pharmacokinetic Study of Pegfilgrastim versus Filgrastim after Dose-Intensive Chemotherapy in Young Adults and Children with Sarcomas** *CLINICAL CANCER RESEARCH*
  Fox, E., Widemann, B. C., Hawkins, D. S., Jayaprakash, N., Dagher, R., Aikin, A. A., Bernstein, D., Long, L., Mackall, C., Helman, L., Steinberg, S. M., Balis, F. M.
  2009; 15 (23): 7361-7367

- **Harnessing the physiology of lymphopenia to support adoptive immunotherapy in lymphoreplete hosts** *BLOOD*
  Cui, Y., Zhang, H., Meadors, J., Poon, R., Guimond, M., Mackall, C. L.
  2009; 114 (18): 3831-3840

- **Background to hematopoietic cell transplantation, including post transplant immune recovery** *BONE MARROW TRANSPLANTATION*
  Mackall, C., Fry, T., Gress, R., Peggs, K., Storek, J., Toubert, A.
  2009; 44 (8): 457-462

- **Beta4 integrin promotes osteosarcoma metastasis and interacts with ezrin** *ONCOGENE*
  Wan, X., Kim, S. Y., Guenther, L. M., Mendoza, A., Briggs, J., Yeung, C., Currier, D., Zhang, H., Mackall, C., Li, W., TUAN, R. S., Deyrup, A. T., Khanna, et al
  2009; 28 (38): 3401-3411

- **Secondary Supratentorial Primitive Neuroectodermal Tumor Following Treatment of Childhood Osteosarcoma** *PEDIATRIC BLOOD & CANCER*
  Fitzhugh, C. D., Wise, B., Baird, K., Tsokos, M., Helman, L., Mackall, C., Savage, S. A., Warren, K. E.
  2009; 53 (3): 496-498

- **Modulating T-cell homeostasis with IL-7: preclinical and clinical studies** *JOURNAL OF INTERNAL MEDICINE*
  Capitini, C. M., CHISTI, A. A., Mackall, C. L.
  2009; 266 (2): 141-153

- **Antigen loading of DCs with irradiated apoptotic tumor cells induces improved anti-tumor immunity compared to other approaches** *CANCER IMMUNOLOGY IMMUNOTHERAPY*
  Fry, T. J., Shand, J. L., Milliron, M., Tasian, S. K., Mackall, C. L.
  2009; 58 (8): 1257-1264

- **Bone marrow deficient in IFN-gamma signaling selectively reverses GVHD-associated immunosuppression and enhances a tumor-specific GVT effect** *BLOOD*
  Capitini, C. M., Herby, S., Milliron, M., Anver, M. R., Mackall, C. L., Fry, T. J.
  2009; 113 (20): 5002-5009

- **Highlights of the First International "Immunotherapy in Pediatric Oncology: Progress and Challenges" Meeting** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Capitini, C. M., Cooper, L. J., Egeler, R. M., Handgretinger, R., Locatelli, F., Sondel, P. M., Mackall, C. L.
  2009; 31 (4): 227-234

- **Interleukin 7 signaling in dendritic cells regulates the homeostatic proliferation and niche size of CD4(+) T cells** *NATURE IMMUNOLOGY*
  Guimond, M., Veenstra, R. G., Grindler, D. J., Zhang, H., Cui, Y., Murphy, R. D., Kim, S. Y., Na, R., Hennighausen, L., Kurtulus, S., Erman, B., Matzinger, P., Merchant, et al
  2009; 10 (2): 149-157

- **Unusual Sites of Extraskeletal Metastases of Ewing Sarcoma After Allogeneic Hematopoietic Stem Cell Transplantation** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Capitini, C. M., Derdak, J., Hughes, M. S., Love, C. P., Baird, K., Mackall, C. L., Fry, T. J.
  2009; 31 (2): 142-144

- **GVHD: A Continuing Barrier to the Safety of Allogeneic Transplantation** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Reddy, P., Arora, M., Guimond, M., Mackall, C. L., Weisdorf, D.
  2009; 15 (1): 162-168

- **Clinical implications of immune reconstitution following hematopoietic stem cell transplantation.** *Cancer treatment and research*
  Peggs, K. S., Krauss, A. C., Mackall, C. L.
  2009; 144: 131-154

- **Current Approach to Pediatric Soft Tissue Sarcomas** *ONCOLOGIST*
  Merchant, M. S., Mackall, C. L.
  2009; 14 (11): 1139-1153

- **Perspective on Potential Clinical Applications of Recombinant Human Interleukin-7** *CYTOKINE THERAPIES: NOVEL APPROACHES FOR CLINICAL INDICATIONS*
  Sportes, C., Gress, R. E., Mackall, C. L.
  2009; 1182: 28-38

- **Cytokines as Adjuvants for Vaccine and Cellular Therapies for Cancer.** *American journal of immunology*
  Capitini, C. M., Fry, T. J., Mackall, C. L.
  2009; 5 (3): 65-83

- **Generation, Affinity Maturation, and Characterization of a Human Anti-Human NKG2D Monoclonal Antibody with Dual Antagonistic and Agonistic Activity** *JOURNAL OF MOLECULAR BIOLOGY*
  Kwong, K. Y., Baskar, S., Zhang, H., Mackall, C. L., Rader, C.
  2008; 384 (5): 1143-1156

- **Association of Serum Interleukin-7 Levels With the Development of Acute Graft-Versus-Host Disease** *JOURNAL OF CLINICAL ONCOLOGY*

Dean, R. M., Fry, T., Mackall, C., Steinberg, S. M., Hakim, F., Fowler, D., Odom, J., Foley, J., Gress, R., Bishop, M. R.
2008; 26 (35): 5735-5741

- **A pilot study of consolidative immunotherapy in patients with high-risk pediatric sarcomas** *CLINICAL CANCER RESEARCH*
  Mackall, C. L., Rhee, E. H., Read, E. J., Khuu, H. M., Leitman, S. F., Bernstein, D., Tesso, M., Long, L. M., Grindler, D., Merino, M., Kopp, W., Tsokos, M., Berzofsky, et al
  2008; 14 (15): 4850-4858

- **Administration of rhIL-7 in humans increases in vivo TCR repertoire diversity by preferential expansion of naive T cell subsets** *JOURNAL OF EXPERIMENTAL MEDICINE*
  Sportes, C., Hakim, F. T., Memon, S. A., Zhang, H., Chua, K. S., Brown, M. R., Fleisher, T. A., Krumlauf, M. C., Babb, R. R., Chow, C. K., Fry, T. J., Engels, J., Buffet, et al
  2008; 205 (7): 1701-1714

- **Metabolic syndrome traits in long-term survivors of pediatric sarcoma** *PEDIATRIC BLOOD & CANCER*
  Hoffman, K. E., Derdak, J., Bernstein, D., Reynolds, J. C., Avila, N. A., Gerber, L., Steinberg, S. M., Chrousos, G., Mackall, C. L., Mansky, P. J.
  2008; 50 (2): 341-346

- **Thymic stromal lymphopoietin is not necessary or sufficient to mediate the thymopoietic effects of keratinocyte growth factor** *BLOOD*
  Guimond, M., Leonard, W. J., Spolski, R., Rossi, S. W., Veenstra, R. G., Hollander, G. A., Mackall, C. L., Blazar, B. R.
  2008; 111 (2): 969-970

- **4-1BB is superior to CD28 costimulation for generating CD8(+) cytotoxic lymphocytes for adoptive immunotherapy** *JOURNAL OF IMMUNOLOGY*
  Zhang, H., Snyder, K. M., Suhoski, M. M., Maus, M. V., Kapoor, V., June, C. H., Mackall, C. L.
  2007; 179 (7): 4910-4918

- **Therapy for metastatic ESFT: is it time to ask new questions?** *Pediatric blood & cancer*
  Snyder, K. M., Mackall, C. L.
  2007; 49 (2): 115-116

- **Immune reconstitution prevents metastatic recurrence of murine osteosarcoma** *CANCER IMMUNOLOGY IMMUNOTHERAPY*
  Merchant, M. S., Melchionda, F., Sinha, M., Khanna, C., Helman, L., Mackall, C. L.
  2007; 56 (7): 1037-1046

- **Interferon-gamma sensitizes resistant Ewing's sarcoma cells to tumor necrosis factor apoptosis-inducing ligand-induced apoptosis by up-regulation of caspase-8 without altering chemosensitivity** *AMERICAN JOURNAL OF PATHOLOGY*
  Lissat, A., Vraetz, T., Tsokos, M., Klein, R., Braun, M., Koutelia, N., Fisch, P., Romero, M. E., Long, L., Noellke, P., Mackall, C. L., Niemeyer, C. M., Kontny, et al
  2007; 170 (6): 1917-1930

- **Thromboembolic events in children and young adults with pediatric sarcoma** *JOURNAL OF CLINICAL ONCOLOGY*
  Paz-Priel, I., Long, L., Helman, L. J., Mackall, C. L., Wayne, A. S.
  2007; 25 (12): 1519-1524

- **Potential role for IL-7 in Fas-mediated T cell apoptosis during HIV infection** *JOURNAL OF IMMUNOLOGY*
  Fluur, C., De Milito, A., Fry, T. J., Vivar, N., Eidsmo, L., Atlas, A., Federici, C., Matarrese, P., Logozzi, M., Rajnavolgyi, E., Mackall, C. L., Fais, S., Chiodi, et al
  2007; 178 (8): 5340-5350

- **Immunologic, virologic, and neuropsychologic responses in human immunodeficiency virus-infected children receiving their first highly active antiretroviral therapy regimen** *VIRAL IMMUNOLOGY*
  Hazra, R., Jankelevich, S., Mackall, C. L., Avila, N. A., Wolters, P., Civitello, L., Christensen, B., Jacobsen, F., Steinberg, S. M., Yarchoan, R.
  2007; 20 (1): 131-141

- **Treatment late effects in long-term survivors of pediatric sarcoma** *PEDIATRIC BLOOD & CANCER*
  Mansky, P., Arai, A., Stratton, P., Bernstein, D., Long, L., Reynolds, J., Chen, D., Steinberg, S. M., Lavende, N., Hoffman, K., Nathan, P. C., Parks, R., Augustine, et al
  2007; 48 (2): 192-199

- **Functional outcomes and life satisfaction in long-term survivors of pediatric sarcomas** *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION*

Gerber, L. H., Hoffman, K., Chaudhry, U., Augustine, E., Parks, R., Bernad, M., Mackall, C., Steinberg, S., Mansky, P.
2006; 87 (12): 1611-1617

- **Ewing sarcoma family of tumors in unusual sites: Confirmation by RT-PCR** *PEDIATRIC AND DEVELOPMENTAL PATHOLOGY*
  Ahmed, A. A., Nava, V. E., Pham, T., Taubenberger, J. K., Lichy, J. H., Sorbara, L., Raffeld, M., Mackall, C. L., Tsokos, M.
  2006; 9 (6): 488-495
- **Dysregulation of IL-15-mediated T-cell homeostasis in TGF-beta dominant-negative receptor transgenic mice** *BLOOD*
  Lucas, P. J., Kim, S., Mackall, C. L., Telford, W. G., Chu, Y., T Hakim, F., Gress, R. E.
  2006; 108 (8): 2789-2795
- **Persistent psychological distress in long-term survivors of pediatric sarcoma: The experience at a single institution** *PSYCHO-ONCOLOGY*
  Wiener, L., Battles, H., Bernstein, D., Long, L., Derdak, J., Mackall, C. L., Mansky, P. J.
  2006; 15 (10): 898-910
- **Adolescents and young adults successfully restore lymphocyte homeostasis after intensive T-cell depleting therapy for cancer** *BRITISH JOURNAL OF HAEMATOLOGY*
  Shand, J. C., Mansky, P. J., Brown, M. V., Fleisher, T. A., Mackall, C. L.
  2006; 135 (2): 270-271
- **Autoimmunity during lymphopenia: A two-hit model** *CLINICAL IMMUNOLOGY*
  Krupica, T., Fry, T. J., Mackall, C. L.
  2006; 120 (2): 121-128
- **IL-7 in allogeneic transplant: Clinical promise and potential pitfalls** *LEUKEMIA & LYMPHOMA*
  Snyder, K. M., Mackall, C. L., Fry, T. J.
  2006; 47 (7): 1222-1228
- **IL-7 administration to humans leads to expansion of CD8(+) and CD4(+) cells but a relative decrease of CD4(+) T-regulatory cells** *JOURNAL OF IMMUNOTHERAPY*
  Rosenberg, S. A., Sportes, C., Ahmadzadeh, M., Fry, T. J., Ngo, L. T., Schwarz, S. L., Stetler-Stevenson, M., Morton, K. E., Mavroukakis, S. A., Morre, M., Buffet, R., Mackall, C. L., Gress, et al
  2006; 29 (3): 313-319
- **CD1d-restricted natural killer T cells can down-regulate tumor immunosurveillance independent of interleukin-4 receptor-signal transducer and activator of transcription 6 or transforming growth factor-beta** *CANCER RESEARCH*
  Terabe, M., Khanna, C., Bose, S., Melchionda, F., Mendoza, A., Mackall, C. L., Helman, L. J., Berzofsky, J. A.
  2006; 66 (7): 3869-3875
- **Identification and epitope enhancement of a PAX-FKHR fusion protein breakpoint epitope in alveolar rhabdomyosarcoma cells created by a tumorigenic chromosomal translocation inducing CTL capable of lysing human tumors** *CANCER RESEARCH*
  van den Broeke, L. T., Pendleton, C. D., Mackall, C., Helman, L. J., Berzofsky, J. A.
  2006; 66 (3): 1818-1823
- **Immune reconstitution: From stem cells to lymphocytes** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
  Crooks, G. M., Weinberg, K., Mackall, C.
  2006; 12 (1): 42-46
- **Lymphopenia and interleukin-2 therapy alter homeostasis of CD4(+) CD25(+) regulatory T cells** *NATURE MEDICINE*
  Zhang, H., Chua, K. S., Guimond, M., Kapoor, V., Brown, M. V., Fleisher, T. A., Long, L. M., Bernstein, D., Hill, B. J., Douek, D. C., Berzofsky, J. A., Carter, C. S., Read, et al
  2005; 11 (11): 1238-1243
- **Cytokine signals in T-cell homeostasis** *JOURNAL OF IMMUNOTHERAPY*
  Guimond, M., Fry, T. J., Mackall, C. L.
  2005; 28 (4): 289-294
- **The many faces of IL-7: From lymphopoiesis to peripheral T cell maintenance** *JOURNAL OF IMMUNOLOGY*
  Fry, T. J., Mackall, C. L.
  2005; 174 (11): 6571-6576

- **Adjuvant IL-7 or IL-15 overcomes immunodominance and improves survival of the CD8(+) memory cell pool** *JOURNAL OF CLINICAL INVESTIGATION*
  Melchionda, F., Fry, T. J., Milliron, M. J., McKirdy, M. A., Tagaya, Y., Mackall, C. L.
  2005; 115 (5): 1177-1187

- **Adjuvant chemotherapy for the treatment of advanced pediatric nonrhabdomyosarcoma soft tissue sarcoma: the National Cancer Institute experience** *PEDIATRIC BLOOD & CANCER*
  Nathan, P. C., Tsokos, M., Long, L., Bernstein, D., Wexler, L. H., Mackall, C. L., Helman, L. J.
  2005; 44 (5): 449-454

- **Age-dependent incidence, time course, and consequences of thymic renewal in adults** *JOURNAL OF CLINICAL INVESTIGATION*
  Hakim, F. T., Memon, S. A., Cepeda, R., Jones, E. C., Chow, C. K., Kasten-Sportes, C., Odom, J., Vance, B. A., Christensen, B. L., Mackall, C. L., Gress, R. E.
  2005; 115 (4): 930-939

- **Immune reconstitution following hematopoietic progenitor cell transplantation: challenges for the future** *BONE MARROW TRANSPLANTATION*
  Fry, T. J., Mackall, C. L.
  2005; 35: S53-S57

- **Thymic function in HIV infection.** *Current HIV/AIDS reports*
  Hazra, R., Mackall, C.
  2005; 2 (1): 24-28

- **Cancer therapy-induced immune modulation.** *Cancer chemotherapy and biological response modifiers*
  Karl, J. C., Mackall, C. L.
  2005; 22: 325-341

- **Interferon gamma enhances the effectiveness of tumor necrosis factor-related apoptosis-inducing ligand receptor agonists in a xenograft model of Ewing's sarcoma** *CANCER RESEARCH*
  Merchant, M. S., Yang, X. Z., Melchionda, F., Romero, M., Klein, R., Thiele, C. J., Tsokos, M., Kontny, H. U., Mackall, C. L.
  2004; 64 (22): 8349-8356

- **Flt3 ligand enhances thymic-dependent and thymic-independent immune reconstitution** *BLOOD*
  Fry, T. J., Sinha, M., Milliron, M., Chu, Y. W., Kapoor, V., Gress, R. E., Thomas, E., Mackall, C. L.
  2004; 104 (9): 2794-2800

- **Escape from immune surveillance does not result in tolerance to tumor-associated antigens** *JOURNAL OF IMMUNOTHERAPY*
  Melchionda, F., McKirdy, M. K., Medeiros, F., Fry, T. J., Mackall, C. L.
  2004; 27 (5): 329-338

- **A dose effect of IL-7 on thymocyte development** *BLOOD*
  El Kassar, N., Lucas, P. J., Klug, D. B., Zamisch, M., Merchant, M., Bare, C. V., Choudhury, B., Sharrow, S. O., Richie, E., Mackall, C. L., Gress, R. E.
  2004; 104 (5): 1419-1427

- **Recombinant interleukin-7 induces proliferation of naive macaque CD4(+) and CD8(+) T cells in vivo** *JOURNAL OF VIROLOGY*
  Moniuszko, M., Fry, T., Tsai, W. P., Morre, M., Assouline, B., Cortez, P., Lewis, M. G., Cairns, S., Mackall, C., Franchini, G.
  2004; 78 (18): 9740-9749

- **A role for thymic stromal lymphopoietin in CD4(+) T cell development** *JOURNAL OF EXPERIMENTAL MEDICINE*
  Al-Shami, A., Spolski, R., Kelly, J., Fry, T., Schwartzberg, P. L., Pandey, A., Mackall, C. L., Leonard, W. J.
  2004; 200 (2): 159-168

- **Pediatric large-volume leukapheresis: a single institution experience with heparin versus citrate-based anticoagulant regimens** *TRANSFUSION*
  Bolan, C. D., Yau, Y. Y., Cullis, H. C., Horwitz, M. E., Mackall, C. L., Barrett, A. J., Malech, H. L., Rehak, N. N., Wayne, A. S., Leitman, S. F.
  2004; 44 (2): 229-238

- **Effect of imatinib mesylate on neuroblastoma tumorigenesis and vascular endothelial growth factor expression** *JOURNAL OF THE NATIONAL CANCER INSTITUTE*
  Beppu, K., Jaboine, J., Merchant, M. S., Mackall, C. L., Thiele, C. J.

2004; 96 (1): 46-55

- **Tumor expression of 4-1BB ligand sustains tumor lytic T cells** *CANCER BIOLOGY & THERAPY*
  Zhang, H., Merchant, M. S., Chua, K. S., Khanna, C., Helman, L. J., Telford, B., Ward, Y., Summers, J., Toretsky, J., Thomas, E. K., June, C. H., Mackall, C. L.
  2003; 2 (5): 579-586

- **Beta-platelet-derived growth factor receptor mediates motility and growth of Ewing's sarcoma cells** *ONCOGENE*
  Uren, A., Merchant, M. S., Sun, C. J., Vitolo, M. I., Sun, Y., Tsokos, M., Illei, P. B., Ladanyi, M., Passaniti, A., Mackall, C., Toretsky, J. A.
  2003; 22 (15): 2334-2342

- **IL-7 therapy dramatically alters peripheral T-cell homeostasis in normal and SIV-infected nonhuman primates** *BLOOD*
  Fry, T. J., Moniuszko, M., Creekmore, S., Donohue, S. J., Douek, D. C., Giardina, S., Hecht, T. T., Hill, B. J., Komschlies, K., Tomaszewski, J., Franchini, G., Mackall, C. L.
  2003; 101 (6): 2294-2299

- **Induction of caspase 8 by interferon gamma renders some neuroblastoma (NB) cells sensitive to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) but reveals that a lack of membrane TR1/TR2 also contributes to TRAIL resistance in NB** *CANCER RESEARCH*
  Yang, X. Z., Merchant, M. S., Romero, M. E., Tsokos, M., Wexler, L. H., Kontny, U., Mackall, C. L., Thiele, C. J.
  2003; 63 (5): 1122-1129

- **Neonates support lymphopenia-induced proliferation** *IMMUNITY*
  Min, B. K., McHugh, R., Sempowski, G. D., Mackall, C., Foucras, G., PAUL, W. E.
  2003; 18 (1): 131-140

- **Potential use of imatinib in Ewing's sarcoma: Evidence for in vitro and in vivo activity** *JOURNAL OF THE NATIONAL CANCER INSTITUTE*
  Merchant, M. S., WOO, C. W., Mackall, C. L., Thiele, C. J.
  2002; 94 (22): 1673-1679

- **Bax deficiency partially corrects interleukin-7 receptor alpha deficiency** *IMMUNITY*
  Khaled, A. R., Li, W. Q., Huang, J. Q., Fry, T. J., Khaled, A. S., Mackall, C. L., Muegge, K., Young, H. A., Durum, S. K.
  2002; 17 (5): 561-573

- **Interleukin-7 and immunorestoration in HIV: Beyond the thymus** *JOURNAL OF HEMATOTHERAPY & STEM CELL RESEARCH*
  Fry, T. J., Mackall, C. L.
  2002; 11 (5): 803-807

- **Interleukin 7 worsens graft-versus-host disease** *BLOOD*
  Sinha, M. L., Fry, T. J., Fowler, D. H., Miller, G., Mackall, C. L.
  2002; 100 (7): 2642-2649

- **Focus on sarcomas** *CANCER CELL*
  Mackall, C. L., Meltzer, P. S., Helman, L. J.
  2002; 2 (3): 175-178

- **Treatment of metastatic osteosarcoma with the somatostatin analog OncoLar: Significant reduction of insulin-like growth factor-1 serum levels** *37th Annual Meeting of the American-Society-of-Clinical-Oncology*
  Mansky, P. J., Liewehr, D. J., STEINBERG, S. M., Chrousos, G. P., Avila, N. A., Long, L., Bernstein, D., Mackall, C. L., Hawkins, D. S., Helman, L. J.
  LIPPINCOTT WILLIAMS & WILKINS.2002: 440–46

- **Interleukin-7: from bench to clinic** *BLOOD*
  Fry, T. J., Mackall, C. L.
  2002; 99 (11): 3892-3904

- **Current concepts of thymic aging** *SPRINGER SEMINARS IN IMMUNOPATHOLOGY*
  Fry, T. J., Mackall, C. L.
  2002; 24 (1): 7-22

- **Pilot trial of tumor-specific peptide vaccination and continuous infusion interleukin-2 in patients with recurrent Ewing sarcoma and alveolar rhabdomyosarcoma: An inter-institute NIH study** *MEDICAL AND PEDIATRIC ONCOLOGY*
  Dagher, R., Long, L. M., Read, E. J., Leitman, S. F., Carter, C. S., Tsokos, M., Goletz, T. J., Avila, N., Berzofsky, J. A., Helman, L. J., Mackall, C. L.

2002; 38 (3): 158-164

- **Interleukin-7: master regulator of peripheral T-cell homeostasis?** *TRENDS IN IMMUNOLOGY*
  Fry, T. J., Mackall, C. L.
  2001; 22 (10): 564-571

- **Intramedullary Ewing sarcoma of the spinal cord: consequences of molecular diagnostics - Case report** *JOURNAL OF NEUROSURGERY*
  Weil, R. J., Zhuang, Z. P., Pack, S., Kumar, S., Helman, L., Fuller, B. G., Mackall, C. L., Oldfield, E. H.
  2001; 95 (2): 270-275

- **What limits immune reconstitution in HIV infection? Divergent tools converge on thymic function** *AIDS*
  Fry, T. J., Mackall, C. L.
  2001; 15 (14): 1881-1882

- **Immunomagnetic purging of Ewing's sarcoma from blood and bone marrow: Quantitation by real-time polymerase chain reaction** *JOURNAL OF CLINICAL ONCOLOGY*
  Merino, M. E., Navid, F., Christensen, B. L., Toretsky, J. A., Helman, L. J., Cheung, N. K., Mackall, C. L.
  2001; 19 (16): 3649-3659

- **Exploiting genetic alterations to design novel therapies for cancer** *HEMATOLOGY-ONCOLOGY CLINICS OF NORTH AMERICA*
  Cripe, T. P., Mackall, C. L.
  2001; 15 (4): 657-?

- **Spreading the wealth: Antigen discovery in adult tumors can help hone the search for pediatric tumor antigens** *JOURNAL OF IMMUNOTHERAPY*
  Mackall, C. L.
  2001; 24 (4): 281-282

- **High-dose chemotherapy for rhabdomyosarcoma: Where do we go from here** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Mackall, C. L., Helman, L. J.
  2001; 23 (5): 266-267

- **A potential role for interleukin-7 in T-cell homeostasis** *BLOOD*
  Fry, T. J., Connick, E., Falloon, J., Lederman, M. M., Liewehr, D. J., Spritzler, J., STEINBERG, S. M., Wood, L. V., Yarchoan, R., Zuckerman, J., Landay, A., Mackall, C. L.
  2001; 97 (10): 2983-2990

- **Molecular confirmation of Ewing sarcoma** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Dagher, R., Pham, T. A., Sorbara, L., Kumar, S., Long, L., Bernstein, D., Mackall, C., Raffeld, M., Tsokos, M., Helman, L.
  2001; 23 (4): 221-224

- **Sensitivity of Ewing's sarcoma to TRAIL-induced apoptosis** *CELL DEATH AND DIFFERENTIATION*
  Kontny, H. U., Hammerle, K., Klein, R., Shayan, P., Mackall, C. L., Niemeyer, C. M.
  2001; 8 (5): 506-514

- **Long-term virologic and immunologic responses in human immunodeficiency virus type 1-infected children treated with indinavir, zidovudine, and lamivudine** *6th Conference on Retroviruses and Opportunistic Infections*
  Jankelevich, S., Mueller, B. U., Mackall, C. L., Smith, S., Zwerski, S., Wood, L. V., Zeichner, S. L., Serchuck, L., STEINBERG, S. M., Nelson, R. P., Sleasman, J. W., Nguyen, B. Y., Pizzo, et al
  OXFORD UNIV PRESS INC.2001: 1116–20

- **Interleukin-7 restores immunity in athymic T-cell-depleted hosts** *BLOOD*
  Fry, T. J., Christensen, B. L., Komschlies, K. L., Gress, R. E., Mackall, C. L.
  2001; 97 (6): 1525-1533

- **Clinical trial designs for the early clinical development of therapeutic cancer vaccines** *JOURNAL OF CLINICAL ONCOLOGY*
  Simon, R. M., STEINBERG, S. M., Hamilton, M., Hildesheim, A., Khleif, S., Kwak, L. W., Mackall, C. L., Schlom, J., Topalian, S. L., Berzofsky, J. A.
  2001; 19 (6): 1848-1854

- **IL-7 increases both thymic-dependent and thymic-independent T-cell regeneration after bone marrow transplantation** *BLOOD*
  Mackall, C. L., Fry, T. J., Bare, C., Morgan, P., Galbraith, A., Gress, R. E.

2001; 97 (5): 1491-1497

- **Development of a clinical-scale method for generation of dendritic cells from PBMC for use in cancer immunotherapy** *CYTOTHERAPY*
  Wong, E. C., Maher, V. E., Hines, K., Lee, J., Carter, C. S., Goletz, T., Kopp, W., Mackall, C. L., Berzofsky, J. A., Read, E. J.
  2001; 3 (1): 19-29
- **Targeting pediatric malignancies for T cell-mediated immune responses.** *Current oncology reports*
  Mackall, C. L., Helman, L. J.
  2000; 2 (6): 539-546
- **Prolonged CD4 depletion after sequential autologous peripheral blood progenitor cell infusions in children and young adults** *BLOOD*
  Mackall, C. L., Stein, D., Fleisher, T. A., Brown, M. R., Hakim, F. T., Bare, C. V., Leitman, S. F., Read, E. J., Carter, C. S., Wexler, L. H., Gress, R. E.
  2000; 96 (2): 754-762
- **Targeting tumor specific translocations in sarcomas in pediatric patients for immunotherapy** *CLINICAL ORTHOPAEDICS AND RELATED RESEARCH*
  Mackall, C., Berzofsky, J., Helman, L. J.
  2000: 25-31
- **T-cell immunodeficiency following cytotoxic antineoplastic therapy: A review (Reprinted from The Oncologist, vol 4, pg 370-378, 1999)** *STEM CELLS*
  Mackall, C. L.
  2000; 18 (1): 10-18
- **T-cell immunodeficiency following cytotoxic antineoplastic therapy: a review.** *oncologist*
  Mackall, C. L.
  1999; 4 (5): 370-378
- **Simultaneous expression of fas and nonfunctional Fas ligand in Ewing's sarcoma** *CANCER RESEARCH*
  Kontny, H. U., Lehrnbecher, T. M., Chanock, S. J., Mackall, C. L.
  1998; 58 (24): 5842-5849
- **Thymic function in young/old chimeras: substantial thymic T cell regenerative capacity despite irreversible age-associated thymic involution** *EUROPEAN JOURNAL OF IMMUNOLOGY*
  Mackall, C. L., Punt, J. A., Morgan, P., Farr, A. G., Gress, R. E.
  1998; 28 (6): 1886-1893
- **Molecular alterations in pediatric sarcomas: potential targets for immunotherapy.** *Sarcoma*
  Goletz, T. J., Mackall, C. L., Berzofsky, J. A., Helman, L. J.
  1998; 2 (2): 77-87
- **Thymic aging and T-cell regeneration** *IMMUNOLOGICAL REVIEWS*
  Mackall, C. L., Gress, R. E.
  1997; 160: 91-102
- **Restoration of T-cell homeostasis after T-cell depletion.** *Seminars in immunology*
  Mackall, C. L., Hakim, F. T., Gress, R. E.
  1997; 9 (6): 339-346
- **Constraints on CD4 recovery postchemotherapy in adults: Thymic insufficiency and apoptotic decline of expanded peripheral CD4 cells** *BLOOD*
  Hakim, F. T., Cepeda, R., Kaimei, S., Mackall, C. L., Mcatee, N., Zujewski, J., Cowan, K., Gress, R. E.
  1997; 90 (9): 3789-3798
- **Therapy-induced alterations in host defense in children receiving therapy for cancer** *JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY*
  Lehrnbecher, T., Foster, C., Vazquez, N., Mackall, C. L., Chanock, S. J.
  1997; 19 (5): 399-417
- **A role for TGF beta 1 in Langerhans cell biology - Further characterization of the epidermal Langerhans cell defect in TGF beta 1 null mice** *JOURNAL OF CLINICAL INVESTIGATION*
  Borkowski, T. A., Letterio, J. J., Mackall, C. L., Saitoh, A., Wang, X. J., Roop, D. R., Gress, R. E., Udey, M. C.

1997; 100 (3): 575-581

- **Pathways of T-cell regeneration in mice and humans: Implications for bone marrow transplantation and immunotherapy** *IMMUNOLOGICAL REVIEWS*
  Mackall, C. L., Gress, R. E.
  1997; 157: 61-72

- **Distinctions between CD8(+) and CD4(+) T-cell regenerative pathways result in prolonged T-cell subset imbalance after intensive chemotherapy** *BLOOD*
  Mackall, C. L., Fleisher, T. A., Brown, M. R., ANDRICH, M. P., Chen, C. C., Feuerstein, I. M., Magrath, I. T., Wexler, L. H., Dimitrov, D. S., Gress, R. E.
  1997; 89 (10): 3700-3707

- **T-cell regeneration: All repertoires are not created equal** *IMMUNOLOGY TODAY*
  Mackall, C. L., Hakim, F. T., Gress, R. E.
  1997; 18 (5): 245-251

- **Langerhans cells in the TGF beta 1 null mouse** *DENDRITIC CELLS IN FUNDAMENTAL AND CLINICAL IMMUNOLOGY, VOL 3*
  Borkowski, T. A., Letterio, J. J., Mackall, C. L., Saitoh, A., Farr, A. G., Wang, X. J., Roop, D. R., Gress, R. E., Udey, M. C.
  1997; 417: 307-310

- **Autoimmunity associated with TGF-beta 1-deficiency in mice is dependent on MHC class II antigen expression** *JOURNAL OF CLINICAL INVESTIGATION*
  Letterio, J. J., Geiser, A. G., Kulkarni, A. B., Dang, H., Kong, L. P., Nakabayashi, T., Mackall, C. L., Gress, R. E., ROBERTS, A. B.
  1996; 98 (9): 2109-2119

- **Thymic-independent T cell regeneration occurs via antigen-driven expansion of peripheral T cells resulting in a repertoire that is limited in diversity and prone to skewing** *JOURNAL OF IMMUNOLOGY*
  Mackall, C. L., Bare, C. V., Granger, L. A., Sharrow, S. O., Titus, J. A., Gress, R. E.
  1996; 156 (12): 4609-4616

- **Early suppressive effects of chemotherapy and cytokine treatment on committed versus primitive haemopoietic progenitors in patient bone marrow** *BRITISH JOURNAL OF HAEMATOLOGY*
  SCHWARTZ, G. N., Hakim, F., Zujewski, J., Szabo, J. M., Cepada, R., Riseberg, D., Warren, M. K., Mackall, C. L., Setzer, A., Noone, M., COWAN, K. H., Oshaughnessy, J., Gress, et al
  1996; 92 (3): 537-547

- **DEMODICIDOSIS IN CHILDHOOD ACUTE LYMPHOBLASTIC-LEUKEMIA - AN OPPORTUNISTIC INFECTION OCCURRING WITH IMMUNOSUPPRESSION** *JOURNAL OF PEDIATRICS*
  Ivy, S. P., Mackall, C. L., Gore, L., Gress, R. E., Hartley, A.
  1995; 127 (5): 751-754

- **AGE, THYMOPOIESIS, AND CD4+ T-LYMPHOCYTE REGENERATION AFTER INTENSIVE CHEMOTHERAPY** *NEW ENGLAND JOURNAL OF MEDICINE*
  Mackall, C. L., Fleisher, T. A., Brown, M. R., ANDRICH, M. P., Chen, C. C., Feuerstein, I. M., Horowitz, M. E., Magrath, I. T., Shad, A. T., STEINBERG, S. M., Wexler, L. H., Gress, R. E.
  1995; 332 (3): 143-149

- **TRANSFORMING GROWTH-FACTOR-BETA-1 NULL MICE - AN ANIMAL-MODEL FOR INFLAMMATORY DISORDERS** *AMERICAN JOURNAL OF PATHOLOGY*
  Kulkarni, A. B., Ward, J. M., Yaswen, L., Mackall, C. L., Bauer, S. R., Huh, C. G., Gress, R. E., Karlsson, S.
  1995; 146 (1): 264-275

- **LYMPHOCYTE DEPLETION DURING TREATMENT WITH INTENSIVE CHEMOTHERAPY FOR CANCER** *BLOOD*
  Mackall, C. L., Fleisher, T. A., Brown, M. R., Magrath, I. T., Shad, A. T., Horowitz, M. E., Wexler, L. H., Adde, M. A., McClure, L. L., Gress, R. E.
  1994; 84 (7): 2221-2228

- **IMMUNE DYSREGULATION IN TGF-BETA-1-DEFICIENT MICE** *JOURNAL OF IMMUNOLOGY*
  Christ, M., MCCARTNEYFRANCIS, N. L., Kulkarni, A. B., Ward, J. M., Mizel, D. E., Mackall, C. L., Gress, R. E., HINES, K. L., Tian, H. S., Karlsson, S., Wahl, S. M.
  1994; 153 (5): 1936-1946

- **T-CELL REGENERATION AFTER BONE-MARROW TRANSPLANTATION - DIFFERENTIAL CD45 ISOFORM EXPRESSION ON THYMIC-DERIVED VERSUS THYMIC-INDEPENDENT PROGENY** *BLOOD*
  Mackall, C. L., Granger, L., Sheard, M. A., Cepeda, R., Gress, R. E.
  1993; 82 (8): 2585-2594

- **O-2 RESERVE OF LEFT-VENTRICLE OF ISOLATED, SALINE-PERFUSED RABBIT HEART** *AMERICAN JOURNAL OF PHYSIOLOGY*
  Paradise, N. F., SURMITIS, J. M., Mackall, C. L.
  1984; 247 (5): H861-H868