



Sydney X. Lu

Assistant Professor of Medicine (Hematology)

Medicine - Hematology

 NIH Biosketch available Online

CLINICAL OFFICES

- **Hematology Division**

269 Campus Dr Rm 1155

MC 5156

Stanford, CA 94305

Tel (650) 726-1484

Fax (650) 736-0974

ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Moises Antonio Correa

Email moisesac@stanford.edu

Tel 650-725-4036

Bio

BIO

Sydney Lu is a hematologist and medical oncologist in the Division of Hematology, Department of Medicine, studying novel therapeutics for challenging cancers and immune disorders.

Sydney's research career started with graduate studies in the laboratory of Dr. Marcel van den Brink at Memorial Sloan Kettering Cancer Center (MSKCC) studying the biology of pathologic donor T cells during graft-versus-host-disease and beneficial T cells mediating graft-versus-tumor effects after allogeneic bone marrow transplant, as well as the role of the thymus in regenerating healthy and protective donor-derived T cells post-transplant.

The direct relevance of these cellular therapies and their immediate translational applicability to patients inspired him to attend medical school at Stanford and further training in hematology and medical oncology at Memorial Sloan Kettering. There, as a fellow and junior faculty member, he studied disordered RNA splicing in cancer in the laboratory of Dr. Omar Abdel-Wahab, with the goal of developing novel drugs targeting RNA splicing. This work has led to observations that targeted degradation of the RNA binding protein RBM39 may be a feasible therapeutic for the treatment of myeloid cancers bearing RNA splicing factor mutations and that pharmacologic RNA splicing inhibition can generate MHC I-presented peptide neoantigens which are exploitable for immunotherapy in model systems.

Sydney's laboratory is broadly interested in studying RNA processing and splicing in the contexts of:

- 1) normal and pathologic immunity and immunotherapy
- 2) cancer biology
- 3) normal and malignant hematopoiesis

CLINICAL FOCUS

- Hematology

ACADEMIC APPOINTMENTS

- Assistant Professor, Medicine - Hematology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)

- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Travel Scholarship, American Society for Transplantation and Cellular Therapy (formerly ASBMT) (2006)
- Travel Scholarship, American Society for Transplantation and Cellular Therapy (formerly ASBMT) (2009)
- Abstract Achievement Award, American Society of Hematology (2009)
- Mortimer J. Lacher Fellowship, The Lymphoma Foundation (2017, 2018)
- Loan Repayment Program, National Institutes of Health (2017)
- Abstract Achievement Award, American Society of Hematology (2018)
- Research Award, Aplastic Anemia & Myelodysplastic Syndromes International Foundation (2018)
- Young Investigator Award, Conquer Cancer Foundation (ASCO) (2018)
- Lymphoma Research Fellowship, American Association for Cancer Research-Astrazenaca (2018)
- Portlock Challenge - Robert Hirschhorn Endowment Award, Memorial Sloan Kettering Cancer Center (2019)
- Physician Scientist Fellowship Award (declined), Doris Duke Charitable Foundation (2019)
- Research Training Award for Fellows (declined), American Society of Hematology (2019)
- Career Development Award (Fellow), Leukemia and Lymphoma Society (2019)
- K08 Mentored Clinical Scientist Researcher Career Development Award, NIH/NCI (2020)
- Bridge Scholar, Parker Institute for Cancer Immunotherapy (2020)
- Riney Myeloma Initiative, Paula and Rodger Riney Foundation (2021)
- Clinical Scientist Development Award, Doris Duke Charitable Foundation (2022)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Sigma Xi (2003 - present)
- Member, American Association of Immunologists (2009 - present)
- Member, American Society of Hematology (2009 - present)
- Member, American Society for Transplantation and Cellular Therapy (formerly ASBMT) (2009 - present)
- Member, American Society for Clinical Oncology (2014 - present)
- Member, American Association for Cancer Research (2017 - present)
- Member, Society for Immunotherapy of Cancer (2021 - present)

PROFESSIONAL EDUCATION

- Board Certification: Hematology, American Board of Internal Medicine (2020)
- Board Certification: Medical Oncology, American Board of Internal Medicine (2019)
- Fellowship, Memorial Sloan Kettering Cancer Center , Hematology and Medical Oncology (2019)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2016)
- Residency, New York Presbyterian Hospitals, Weill Cornell Campus , Internal Medicine (2015)
- Medical Education: Stanford University School of Medicine (2013) CA
- PhD, Weill Cornell Graduate School of Biomedical Sciences , Immunology (2009)
- BA, Dartmouth College , Chemistry; Biology (2003)

LINKS

- Laboratory website: <https://www.sydneylulab.com/>

Publications

PUBLICATIONS

- **Mechanisms of Resistance to Noncovalent Bruton's Tyrosine Kinase Inhibitors.** *The New England journal of medicine*
Wang, E., Mi, X., Thompson, M. C., Montoya, S., Notti, R. Q., Afaghani, J., Durham, B. H., Penson, A., Witkowski, M. T., Lu, S. X., Bourcier, J., Hogg, S. J., Erickson, et al
2022; 386 (8): 735-743
- **Sustained minimal residual disease negativity in Multiple Myeloma is impacted positively by stool butyrate and healthier plant forward diets**
Shah, U., Derkach, A., Adintori, P., Cross, J., Maclachlan, K., Mailankody, S., Korde, N., Hultcrantz, M., Hassoun, H., Tan, C., Lu, S., Patel, D., Shah, et al
CIG MEDIA GROUP, LP.2021: S61
- **Comparison of venous thromboembolism incidence in newly diagnosed multiple myeloma patients receiving bortezomib, lenalidomide, dexamethasone (RVD) or carfilzomib, lenalidomide, dexamethasone (KRD) with aspirin or rivaroxaban thromboprophylaxis** *BRITISH JOURNAL OF HAEMATOLOGY*
Piedra, K., Peterson, T., Tan, C., Orozco, J., Hultcrantz, M., Hassoun, H., Mailankody, S., Lesokhin, A., Shah, U., Lu, S., Patel, D., Derkach, A., Wilkins, et al
2022; 196 (1): 105-109
- **Pharmacologic modulation of RNA splicing enhances anti-tumor immunity** *CELL*
Lu, S. X., De Neef, E., Thomas, J. D., Sabio, E., Rousseau, B., Gigoux, M., Knorr, D. A., Greenbaum, B., Elhanati, Y., Hogg, S. J., Chow, A., Ghosh, A., Xie, et al
2021; 184 (15): 4032-+
- **Dynamics of minimal residual disease in patients with multiple myeloma on continuous lenalidomide maintenance: a single-arm, single-centre, phase 2 trial** *LANCET HAEMATOLOGY*
Diamond, B., Korde, N., Lesokhin, A. M., Smith, E. L., Shah, U., Mailankody, S., Huftcrantz, M., Hassoun, H., Lu, S. X., Tan, C., Rustad, E. H., Maura, F., Maclachlan, et al
2021; 8 (6): E422-E432
- **Using mobile wearables to establish sleep bioprofiles in newly diagnosed multiple myeloma (MM) patients.**
Hevroni, G., Mastey, D., Tavitian, E., Derkach, A., Salcedo, M., Mailankody, S., Hassoun, H., Lesokhin, A. M., Smith, E. L., Hultcrantz, M., Shah, U. A., Tan, C., Lu, et al
LIPPINCOTT WILLIAMS & WILKINS.2021
- **Using MALDI-TOF mass spectrometry in peripheral blood for the follow up of newly diagnosed multiple myeloma patients treated with daratumumab-based combination therapy** *CLINICA CHIMICA ACTA*
Eveillard, M., Korde, N., Ciardiello, A., Diamond, B., Lesokhin, A., Mailankody, S., Smith, E., Hassoun, H., Hultcrantz, M., Shah, U., Lu, S., Salcedo, M., Werner, et al
2021; 516: 136-141
- **Safety and Effectiveness of Weekly Carfilzomib, Lenalidomide, Dexamethasone, and Daratumumab Combination Therapy for Patients With Newly Diagnosed Multiple Myeloma The MANHATTAN Nonrandomized Clinical Trial** *JAMA ONCOLOGY*
Landgren, O., Hultcrantz, M., Diamond, B., Lesokhin, A. M., Mailankody, S., Hassoun, H., Tan, C., Shah, U. A., Lu, S. X., Salcedo, M., Werner, K., Rispoli, J., Caple, et al
2021; 7 (6): 862-868
- **Minor intron retention drives clonal hematopoietic disorders and diverse cancer predisposition** *NATURE GENETICS*
Inoue, D., Polaski, J. T., Taylor, J., Castel, P., Chen, S., Kobayashi, S., Hogg, S. J., Hayashi, Y., Pineda, J., El Marabti, E., Erickson, C., Knorr, K., Fukumoto, et al
2021; 53 (5): 707-+
- **Tailored treatment to MRD response: A phase I/II study for newly diagnosed multiple myeloma patients using high dose twice-weekly carfilzomib (45 and 56 mg/m²) in combination with lenalidomide and dexamethasone** *AMERICAN JOURNAL OF HEMATOLOGY*
Korde, N., Mastey, D., Tavitian, E., Mailankody, S., Lesokhin, A., Hassoun, H., Smith, E. L., Lendvai, N., Hultcrantz, M., Shah, U., Tan, C., Lu, S., Diamond, et al
2021; 96 (6): E193-E196
- **Accelerated single cell seeding in relapsed multiple myeloma (vol 11, 3617, 2020)** *NATURE COMMUNICATIONS*
Landau, H. J., Yellapantula, V., Diamond, B. T., Rustad, E. H., Maclachlan, K. H., Gundem, G., Medina-Martinez, J., Ossa, J., Levine, M. F., Zhou, Y., Kappagantula, R., Baez, P., Attiyeh, et al

2021; 12 (1): 591

- **COVID-19 Infections and Clinical Outcomes in Patients with Multiple Myeloma in New York City: A Cohort Study from Five Academic Centers** *BLOOD CANCER DISCOVERY*
Hultcrantz, M., Richter, J., Rosenbaum, C. A., Patel, D., Smith, E. L., Korde, N., Lu, S. X., Mailankody, S., Shah, U. A., Lesokhin, A. M., Hassoun, H., Tan, C., Maura, et al
2020; 1 (3): 234-243
- **Accelerated single cell seeding in relapsed multiple myeloma** *NATURE COMMUNICATIONS*
Landau, H. J., Yellapantula, V., Diamond, B. T., Rustad, E. H., Maclachlan, K. H., Gundem, G., Medina-Martinez, J., Ossa, J., Levine, M. F., Zhou, Y., Kappagantula, R., Baez, P., Attiye, et al
2020; 11 (1): 3617
- **Comparison of MALDI-TOF mass spectrometry analysis of peripheral blood and bone marrow-based flow cytometry for tracking measurable residual disease in patients with multiple myeloma** *BRITISH JOURNAL OF HAEMATOLOGY*
Eveillard, M., Rustad, E., Roshal, M., Zhang, Y., Ciardiello, A., Korde, N., Hultcrantz, M., Lu, S., Shah, U., Hassoun, H., Smith, E., Lesokhin, A., Mailankody, et al
2020; 189 (5): 904-907
- **Modern treatments and future directions for newly diagnosed multiple myeloma patients** *BEST PRACTICE & RESEARCH CLINICAL HAEMATOLOGY*
Lu, S. X.
2020; 33 (1): 101151
- **NOVEL ALTERATIONS IN CSF1R, RET, AND OTHER DIVERSE KINASES IN THE HISTIOCYTOSES WITH BIOCHEMICAL AND STRUCTURAL INSIGHTS INTO THEIR MECHANISMS OF ACTIVATION**
Durham, B., Lopez-Rodrigo, E., Picarsic, J., Abramson, D., Rotemberg, V., De Munck, S., Pannecoucke, E., Lu, S., Pastore, A., Mandelker, D., Birsoy, O., Ulaner, G., Walsh, et al
WILEY.2020: S8-S9
- **Activating mutations in CSF1R and additional receptor tyrosine kinases in histiocytic neoplasms** *NATURE MEDICINE*
Durham, B. H., Rodrigo, E., Picarsic, J., Abramson, D., Rotemberg, V., De Munck, S., Pannecoucke, E., Lu, S. X., Pastore, A., Yoshimi, A., Mandelker, D., Ceyhan-Birsoy, O., Ulaner, et al
2019; 25 (12): 1839-1842
- **VTE Rates and Safety Analysis of Newly Diagnosed Multiple Myeloma Patients Receiving Carfilzomib-Lenalidomide-Dexamethasone (KRd) with or without Rivaroxaban Prophylaxis**
Piedra, K. M., Hassoun, H., Buie, L. W., Devlin, S. M., Flynn, J., Hultcrantz, M., Lesokhin, A. M., Lu, S. X., Mailankody, S., Shah, U. A., Smith, E. L., Landgren, O., Korde, et al
AMER SOC HEMATOLOGY.2019
- **Weekly Carfilzomib, Lenalidomide, Dexamethasone and Daratumumab (wKRd-D) Combination Therapy Provides Unprecedented MRD Negativity Rates in Newly Diagnosed Multiple Myeloma: A Clinical and Correlative Phase 2 Study**
Landgren, O., Hultcrantz, M., Lesokhin, A. M., Mailankody, S., Hassoun, H., Smith, E. L., Shah, U. A., Lu, S. X., Mastey, D., Salcedo, M., Diab, V., Werner, K., Rispoli, et al
AMER SOC HEMATOLOGY.2019
- **Spliceosomal Disruption of the Non-Canonical SWI/SNF Chromatin Remodeling Complex in SF3B1 Mutant Leukemias**
Inoue, D., Guo-Liang, C., Liu, B., Lee, S. C., Michel, B. C., Pangallo, J., D'Avino, A. R., North, K., Bitner, L. E., Xiao, M., Kobayashi, S., Yoshimi, A., Cho, et al
AMER SOC HEMATOLOGY.2019
- **Long-Term Sustained Minimal Residual Disease (MRD) Negativity in Multiple Myeloma Patients Treated with Lenalidomide Maintenance Therapy: A Clinical and Correlative Phase 2 Study**
Landgren, O., Mastey, D., Lesokhin, A. M., Smith, E. L., Shah, U. A., Mailankody, S., Hultcrantz, M., Hassoun, H., Lu, S. X., Salcedo, M., Diab, V., Werner, K., Rispoli, et al
AMER SOC HEMATOLOGY.2019
- **MALDI-TOF Mass Spectrometry in Serum for the Follow-up of Newly Diagnosed Multiple Myeloma Patients Treated with Daratumumab-Based Combination Therapy**
Eveillard, M., Hultcrantz, M., Lesokhin, A. M., Mailankody, S., Smith, E. L., Hassoun, H., Shah, U. A., Lu, S. X., Korde, N., Landgren, O., Thoren, K.
AMER SOC HEMATOLOGY.2019
- **An Observational, Retrospective Analysis of Retreatment with Carfilzomib in the Management of Patients with Multiple Myeloma**

- Peterson, T. J., Korde, N., Hassoun, H., Mailankody, S., Lesokhin, A. M., Hultcrantz, M., Shah, U. A., Smith, E. L., Lu, S. X., Landau, H. J., Shah, G. L., Scordo, M., Lahoud, et al
AMER SOC HEMATOLOGY.2019
- **Spliceosomal disruption of the non-canonical BAF complex in cancer** *NATURE*
Inoue, D., Chew, G., Liu, B., Michel, B. C., Pangallo, J., D'Avino, A. R., Hitchman, T., North, K., Lee, S., Bitner, L., Block, A., Moore, A. R., Yoshimi, et al
2019; 574 (7778): 432-+
 - **Association of Immune Marker Changes With Progression of Monoclonal Gammopathy of Undetermined Significance to Multiple Myeloma** *JAMA ONCOLOGY*
Landgren, O., Hofmann, J. N., McShane, C. M., Santo, L., Hultcrantz, M., Korde, N., Mailankody, S., Kazandjian, D., Murata, K., Thoren, K., Ramanathan, L., Dogan, A., Rustad, et al
2019; 5 (9): 1293-1301
 - **Corrupted coordination of epigenetic modifications leads to diverging chromatin states and transcriptional heterogeneity in CLL** *NATURE COMMUNICATIONS*
Pastore, A., Gaiti, F., Lu, S. X., Brand, R. M., Kulm, S., Chaligne, R., Gu, H., Huang, K. Y., Stamenova, E. K., Beguelin, W., Jiang, Y., Schulman, R. C., Kim, et al
2019; 10: 1874
 - **Targeting an RNA-Binding Protein Network in Acute Myeloid Leukemia** *CANCER CELL*
Wang, E., Lu, S. X., Pastore, A., Chen, X., Imig, J., Lee, S., Hockemeyer, K., Ghebrechristos, Y. E., Yoshimi, A., Inoue, D., Ki, M., Cho, H., Bitner, et al
2019; 35 (3): 369-+
 - **Therapeutic Targeting of an RNA Splicing Factor Network for the Treatment of Myeloid Neoplasms**
Lu, S. X., Wang, E., Pastore, A., Chen Xufeng, Imig, J., Lee, S. C., Ghebrechristos, Y., Yoshimi, A., Bitner, L. E., Ki, M., Kloetgen, A., Lin, K., Tibes, R., et al
AMER SOC HEMATOLOGY.2018
 - **Dependency of Spliceosomal Mutant MDS on Innate Immune Signaling**
Lee, S. C., North, K., Chen, C., Kim, E., Lu, S. X., Ki, M., Garippa, R., Lowe, S. W., Bradley, R. K., Abdel-Wahab, O. I.
AMER SOC HEMATOLOGY.2018
 - **Synthetic Lethal and Convergent Biological Effects of Cancer-Associated Spliceosomal Gene Mutations** *CANCER CELL*
Lee, S., North, K., Kim, E., Jang, E., Obeng, E., Lu, S. X., Liu, B., Inoue, D., Yoshimi, A., Ki, M., Yeo, M., Zhang, X., Kim, et al
2018; 34 (2): 225-+
 - **MRD Testing in Multiple Myeloma: The Main Future Driver for Modern Tailored Treatment** *SEMINARS IN HEMATOLOGY*
Landgren, O., Lu, S. X., Hultcrantz, M.
2018; 55 (1): 44-50
 - **Genomic analysis of hairy cell leukemia identifies novel recurrent genetic alterations** *BLOOD*
Durham, B. H., Getta, B., Dietrich, S., Taylor, J., Won, H., Bogenberger, J. M., Scott, S., Kim, E., Chung, Y., Chung, S. S., Huellein, J., Walther, T., Wang, et al
2017; 130 (14): 1644-1648
 - **Robust patient-derived xenografts of MDS/MPN overlap syndromes capture the unique characteristics of CMML and JMML** *BLOOD*
Yoshimi, A., Balasis, M. E., Vedder, A., Feldman, K., Ma, Y., Zhang, H., Lee, S., Letson, C., Niyongere, S., Lu, S. X., Ball, M., Taylor, J., Zhang, et al
2017; 130 (4): 397-407
 - **Splicing factor SF3B1(K700E) mutant dysregulates erythroid differentiation via aberrant alternative splicing of transcription factor TAL1** *PLOS ONE*
Jin, S., Su, H., Ngoc-Tung Tran, Song, J., Lu, S. S., Li, Y., Huang, S., Abdel-Wahab, O., Liu, Y., Zhao, X.
2017; 12 (5): e0175523
 - **Genetic drivers of vulnerability and resistance in relapsed acute lymphoblastic leukemia** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Lu, S. X., Abdel-Wahab, O.
2016; 113 (40): 11071-11073
 - **Ceacam1 Separates Graft-versus-Host-Disease from Graft-versus-Tumor Activity after Experimental Allogeneic Bone Marrow Transplantation** *PLOS ONE*
Lu, S. X., Kappel, L. W., Charbonneau-Allard, A., Atallah, R., Holland, A. M., Turbide, C., Hubbard, V. M., Rotolo, J. A., Smith, M., Suh, D., King, C., Rao, U. K., Yim, et al
2011; 6 (7): e21611

- **Absence of P-Selectin in Recipients of Allogeneic Bone Marrow Transplantation Ameliorates Experimental Graft-versus-Host Disease** *JOURNAL OF IMMUNOLOGY*
Lu, S. X., Holland, A. M., Na, I., Terwey, T. H., Alpdogan, O., Bautista, J. L., Smith, O. M., Suh, D., King, C., Kochman, A., Hubbard, V. M., Rao, U. K., Yim, et al
2010; 185 (3): 1912-1919
- **Inhibition of Neovascularization to Simultaneously Ameliorate Graft-vs-Host Disease and Decrease Tumor Growth** *JNCI-JOURNAL OF THE NATIONAL CANCER INSTITUTE*
Penack, O., Henke, E., Suh, D., King, C. G., Smith, O. M., Na, I., Holland, A. M., Ghosh, A., Lu, S. X., Jenq, R. R., Liu, C., Murphy, G. F., Lu, et al
2010; 102 (12): 894-908
- **Relapse after Allogeneic Hematopoietic Cell Therapy** *BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION*
van den Brink, M. M., Porter, D. L., Giralt, S., Lu, S. X., Jenq, R. R., Hanash, A., Bishop, M. R.
2010; 16 (1): S138-S145
- **The cytolytic molecules Fas ligand and TRAIL are required for murine thymic graft-versus-host disease** *JOURNAL OF CLINICAL INVESTIGATION*
Na, I., Lu, S. X., Yim, N. L., Goldberg, G. L., Tsai, J., Rao, U., Smith, O. M., King, C. G., Suh, D., Hirschhorn-Cymerman, D., Palomba, L., Penack, O., Holland, et al
2010; 120 (1): 343-356
- **NOD2 Regulates Hematopoietic Cell Function During Graft-Versus-Host Disease.**
Penack, O., Smith, O. M., Yim, N., Rao, U., Ghosh, A., Murphy, G. F., Holland, A. M., Jenq, R. R., Lu, S. X., Na, I., van den Brink, M. M.
AMER SOC HEMATOLOGY.2009: 967-968
- **TRAIL/DR5 Interactions Are Important for Thymic Damage After Allogeneic Bone Marrow Transplantation**
Na, I., Lu, S. X., Yim, N. L., Goldberg, G. L., Tsai, J., Rao, U. K., Smith, O. M., King, C., Suh, D., Hirschhorn-Cymerman, D., Palomba, M., Penack, O., Holland, et al
AMER SOC HEMATOLOGY.2009: 101
- **Cytolytic T cells induce ceramide-rich platforms in target cell membranes to initiate graft-versus-host disease** *BLOOD*
Rotolo, J. A., Stancevic, B., Lu, S. X., Zhang, J., Suh, D., King, C. G., Kappel, L. W., Murphy, G. F., Liu, C., Fuks, Z., van den Brink, M. R., Kolesnick, R.
2009; 114 (17): 3693-3706
- **NOD2 regulates hematopoietic cell function during graft-versus-host disease** *JOURNAL OF EXPERIMENTAL MEDICINE*
Penack, O., Smith, O. M., Cunningham-Bussel, A., Liu, X., Rao, U., Yim, N., Na, I., Holland, A. M., Ghosh, A., Lu, S. X., Jenq, R. R., Liu, C., Murphy, et al
2009; 206 (10): 2101-2110
- **The T Cell Cytolytic Molecules FasL and TRAIL are Required for Thymic GVHD**
Lu, S. X., Na, I., Goldberg, G. L., King, C. G., Smith, M., Suh, D., Rao, U., Yim, N., Holland, A. M., Penack, O., Jenq, R. R., Ghosh, A., Houghton, et al
AMER ASSOC IMMUNOLOGISTS.2009
- **Keratinocyte growth factor enhances DNA plasmid tumor vaccine responses after murine allogeneic bone marrow transplantation** *BLOOD*
Jenq, R. R., King, C. G., Volk, C., Suh, D., Smith, O. M., Rao, U. K., Yim, N. L., Holland, A. M., Lu, S. X., Zakrzewski, J. L., Goldberg, G. L., Diab, A., Alpdogan, et al
2009; 113 (7): 1574-1580
- **CEACAMI REGULATES EXPERIMENTAL GRAFT-VERSUS-HOST-DISEASE**
Lu, S. X., Willis, L., Charbonneau-Allard, A. M., Atallah, R., Holland, A. M., Turbide, C., Hubbard, V. M., Rotolo, J. A., Smith, O. M., Suh, D., King, C., Rao, U. K., Yim, et al
ELSEVIER SCIENCE INC.2009: 13
- **DEPLETION OF VASCULAR ENDOTHELIAL PROGENITOR CELLS SIMULTANEOUSLY AMELIORATES GVHD AND INHIBITS TUMOR GROWTH**
Penack, O., Henke, E., Suh, D., King, C., Smith, M., Na, I., Holland, A., Ghosh, A., Lu, S., Feng, R., Liu, C., May, C., Murphy, et al
ELSEVIER SCIENCE INC.2009: 1
- **STAT-3 and ERK 1/2 phosphorylation are critical for T-cell alloactivation and graft-versus-host disease** *BLOOD*
Lu, S. X., Alpdogan, O., Lin, J., Balderas, R., Campos-Gonzalez, R., Wang, X., Gao, G., Suh, D., King, C., Chow, M., Smith, O. M., Hubbard, V. M., Bautista, et al
2008; 112 (13): 5254-5258

- **Rapidly proliferating CD44(hi) peripheral T cells undergo apoptosis and delay posttransplantation T-cell reconstitution after allogeneic bone marrow transplantation** *BLOOD*
Alpdogan, S., Lu, S. X., Patel, N., McGoldrick, S., Suh, D., Budak-Alpdogan, T., Smith, O. M., Grubin, J., King, C., Goldberg, G. L., Hubbard, V. M., Kochman, A. A., van den Brink, et al
2008; 112 (12): 4755-4764
- **Depletion of Vascular Endothelial Progenitor Cells Inhibits Inflammation**
Penack, O., Herike, E., Suh, D., King, C., Smith, M. O., Na, I., Holland, A., Ghosh, A., Lu, S. X., Jenq, R., Liu, C., Murphy, G. F., Lu, et al
AMER SOC HEMATOLOGY.2008: 258-259
- **Signal transduction in chronic lymphocytic leukemia (CLL) cells by multiparameter flow-cytometry**
Palomba, M. L., Patel, J. P., Rao, U., Rastalsky, N., Lu, S. X., Houghton, A. N., Zelenetz, A. D., van den Brink, M. R.
ELSEVIER.2008: 192
- **Tumor immunotherapy across MHC barriers using allogeneic T-cell precursors** *NATURE BIOTECHNOLOGY*
Zakrzewski, J. L., Suh, D., Markley, J. C., Smith, O. M., King, C., Goldberg, G. L., Jenq, R., Holland, A. M., Grubin, J., Cabrera-Perez, J., Brentjens, R. J., Lu, S. X., Rizzuto, et al
2008; 26 (4): 453-461
- **Off-the-shelf tumor immunotherapy with genetically enhanced allogeneic T cell precursors**
Zakrzewski, J. L., Suh, D., Markley, J., King, C., Smith, O. M., Goldberg, G., Jenq, R., Holland, A. M., Lu, S., Sant'Angelo, D., Riviere, I., Sadelain, M., van den Brink, et al
FEDERATION AMER SOC EXP BIOL.2008
- **OFF-THE-SHELF TUMOR IMMUNOTHERAPY WITH GENETICALLY ENHANCED ALLOGENEIC T-CELL PRECURSORS**
Zakrzewski, J. L., Suh, D., Markley, J. C., Smith, O. M., King, C., Goldberg, G., Jenq, R., Holland, A. M., Grubin, J., Cabrera-Perez, J., Lu, S. X., Rizzuto, G., Sant'Angelo, et al
ELSEVIER SCIENCE INC.2008: 126
- **Discovery and validation of STAT-3 and ERK1/2 phosphorylation as critical for the function of alloactivated T cells in acute graft-versus-host-disease via a novel technique for drug discovery**
Lu, S. X., Alpdogan, O., Campos, R., Wang, X., Gao, G., Chow, M., Lin, J., Suh, D., King, C., Hubbard, V. M., Bautista, J. L., Kochman, A. A., Zakrzewski, et al
AMER SOC HEMATOLOGY.2007: 950A-951A
- **Targeted 'Off-the-Shelf' tumor immunotherapy using allogeneic T-Cell precursors**
Zakrzewski, J. L., Suh, D., Smith, O. M., King, C., Goldberg, G. L., Jenq, R., Holland, A. M., Grubin, J., Lu, S. X., Cabrera-Perez, J., Rizzuto, G., Sant'Angelo, D. B., van den Brink, et al
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