

**Michael Nishimura**  
**Publications**

Lee JG, Jaeger KE, Seki Y, Lim YW, Cunha C, Vuchkovska A, Nelson AJ, Nikolai A, ..., **Nishimura M**, ..., Iwashima M. **Human CD36<sup>hi</sup> monocytes induce Foxp3<sup>+</sup> CD25<sup>+</sup> T cells with regulatory functions from CD4 and CD8 subsets.** Immunology. 2021 Feb 1. doi: 10.1111/imm.13316. Epub ahead of print. PMID: 33524161.

Pulido I, Ollosi S, Aparisi S, Becker JH, Aliena-Valero A, Benet M, Rodríguez ML, López A, ..., **Nishimura MI**, ..., Shimamura T. **Endothelin-1-Mediated Drug Resistance in EGFR-Mutant Non-Small Cell Lung Carcinoma.** Cancer Res. 2020 Oct 1;80(19):4224-4232. doi:10.1158/0008-5472.CAN-20-0141. Epub 2020 Aug 3. PMID: 32747363; PMCID: PMC7541638.

Nelson MH, Knochelmann HM, Bailey SR, Huff LW, Bowers JS, Majchrzak-Kuligowska K, Wyatt MM, Rubinstein MP, ..., **Nishimura MI**, ..., Paulos CM. **Identification of human CD4<sup>+</sup> T cell populations with distinct antitumor activity.** Sci Adv. 2020 Jul 1;6(27):eaba7443. doi: 10.1126/sciadv.aba7443. PMID: 32937437; PMCID: PMC7458458.

Moore TV, **Nishimura MI.** **Improved MHC II epitope prediction - a step towards personalized medicine.** Nat Rev Clin Oncol. 2020 Feb;17(2):71-72. doi: 10.1038/s41571-019-0315-0. PMID: 31836878; PMCID: PMC7223749.

Smith TW Jr, **Nishimura MI.** **Targeting Cancer with Genetically Engineered TCR T Cells.** Recent Results Cancer Res. 2020;214:129-151. doi: 10.1007/978-3-030-23765-3\_4. PMID: 31473851.

Hossain NM, **Nishimura MI.** **Late Events After CD-19 CAR-T Treatment.** Biol Blood Marrow Transplant. 2020 Jan;26(1):e1-e2. doi: 10.1016/j.bbmt.2019.10.020. Epub 2019 Oct 25. PMID: 31669398.

Spear TT, Evavold BD, Baker BM, **Nishimura MI.** **Understanding TCR affinity, antigen specificity, and cross-reactivity to improve TCR gene-modified T cells for cancer immunotherapy.** Cancer Immunol Immunother. 2019 Nov;68(11):1881-1889. doi: 10.1007/s00262-019-02401-0. Epub 2019 Oct 8. PMID: 31595324.

Kierkels GJJ, Scheper W, Meringa AD, Johanna I, Beringer DX, Janssen A, Schiffler M, Aarts-Riemens T, ..., **Nishimura MI**, ..., Kuball J. **Identification of a tumor-specific allo-HLA-restricted  $\gamma\delta$ TCR.** Blood Adv. 2019 Oct 8;3(19):2870-2882. doi: 10.1182/bloodadvances.2019032409. PMID: 31585951; PMCID: PMC6784524.

Cosgrove C, Dellacecca ER, van den Berg JH, Haanen JB, **Nishimura MI**, Le Poole IC, Bergmans HEN. **Transgenerational transfer of gene-modified T cells.** J Immunother Cancer. 2019 Jul 15;7(1):186. doi: 10.1186/s40425-019-0657-2. PMID: 31307533; PMCID: PMC6631543.

Chakraborty P, Chatterjee S, Kesarwani P, Thyagarajan K, Iamsawat S, Dalheim A, Nguyen H, Selvam SP, ..., **Nishimura MI**, Mehrotra S. **Thioredoxin-1 improves the immunometabolic phenotype of antitumor T cells.** *J Biol Chem.* 2019 Jun 7;294(23):9198-9212. doi: 10.1074/jbc.RA118.006753. Epub 2019 Apr 10. PMID: 30971427; PMCID: PMC6556575.

Breuer EK, Fukushima-Lopes D, Dalheim A, Burnette M, Zartman J, Kaja S, Wells C, Campo L, ..., **Nishimura MI**, Gentile S. **Potassium channel activity controls breast cancer metastasis by affecting  $\beta$ -catenin signaling.** *Cell Death Dis.* 2019 Feb 21;10(3):180. doi: 10.1038/s41419-019-1429-0. PMID: 30792401; PMCID: PMC6385342.

Hellman LM, Foley KC, Singh NK, Alonso JA, Riley TP, Devlin JR, Ayres CM, Keller GLJ, ..., **Nishimura MI**, Baker BM. **Improving T Cell Receptor On-Target Specificity via Structure-Guided Design.** *Mol Ther.* 2019 Feb 6;27(2):300-313. doi: 10.1016/j.ymthe.2018.12.010. Epub 2018 Dec 14. PMID: 30617019; PMCID: PMC6369632.

Riley TP, Hellman LM, Gee MH, Mendoza JL, Alonso JA, Foley KC, **Nishimura MI**, Vander Kooi CW, Garcia KC, Baker BM. **T cell receptor cross-reactivity expanded by dramatic peptide-MHC adaptability.** *Nat Chem Biol.* 2018 Oct;14(10):934-942. doi: 10.1038/s41589-018-0130-4. Epub 2018 Sep 17. PMID: 30224695; PMCID: PMC6371774.

Eby JM, Smith AR, Riley TP, Cosgrove C, Ankney CM, Henning SW, Paulos CM, Garrett-Mayer E, ..., **Nishimura MI**, ..., Le Poole IC. **Molecular properties of gp100-reactive T-cell receptors drive the cytokine profile and antitumor efficacy of transgenic host T cells.** *Pigment Cell Melanoma Res.* 2019 Jan;32(1):68-78. doi: 10.1111/pcmr.12724. Epub 2018 Aug 13. PMID: 30009548; PMCID: PMC6309485.

Nelson A, Cunha C, **Nishimura MI**, Iwashima M. **Activated human Foxp3<sup>+</sup> regulatory T cells produce membrane-bound TNF.** *Cytokine.* 2018 Nov;111:454-459. doi: 10.1016/j.cyto.2018.05.036. Epub 2018 Jun 6. PMID: 29885993; PMCID: PMC6281785.

Foley KC, **Nishimura MI**, Moore TV. **Combination immunotherapies implementing adoptive T-cell transfer for advanced-stage melanoma.** *Melanoma Res.* 2018 Jun;28(3):171-184. doi: 10.1097/CMR.0000000000000436. PMID: 29521881; PMCID: PMC5912975.

Wang F, Bank T, Malnassy G, Arteaga M, Shang N, Dalheim A, Ding X, Cotler SJ, ..., **Nishimura MI**, ..., Qiu W. **Inhibition of insulin-like growth factor 1 receptor enhances the efficacy of sorafenib in inhibiting hepatocellular carcinoma cell growth and survival.** *Hepatol Commun.* 2018 Apr 17;2(6):732-746. doi: 10.1002/hep4.1181. PMID: 29881824; PMCID: PMC5983153.

Spear TT, Wang Y, Smith TW Jr, Simms PE, Garrett-Mayer E, Hellman LM, Baker BM, **Nishimura MI**. **Altered Peptide Ligands Impact the Diversity of Polyfunctional Phenotypes in T Cell Receptor Gene-Modified T Cells.** *Mol Ther.* 2018 Apr 4;26(4):996-1007. doi: 10.1016/j.ymthe.2018.01.015. Epub 2018 Feb 2. PMID: 29503203; PMCID: PMC6079370.

Scheffel MJ, Scurti G, Wyatt MM, Garrett-Mayer E, Paulos CM, **Nishimura MI**, Voelkel-Johnson C. **N-acetyl cysteine protects anti-melanoma cytotoxic T cells from exhaustion induced by rapid expansion via the downmodulation of Foxo1 in an Akt-dependent manner.** *Cancer Immunol Immunother.* 2018 Apr;67(4):691-702. doi: 10.1007/s00262-018-2120-5. Epub 2018 Feb 2. PMID: 29396710; PMCID: PMC5862784.

Moore T, Wagner CR, Scurti GM, Hutchens KA, Godellas C, Clark AL, Kolawole EM, Hellman LM, Singh NK, ..., **Nishimura MI**. Correction to: **Clinical and immunologic evaluation of three metastatic melanoma patients treated with autologous melanoma-reactive TCR-transduced T cells.** *Cancer Immunol Immunother.* 2018 Feb;67(2):327. doi: 10.1007/s00262-017-2102-z. Erratum for: *Cancer Immunol Immunother.* 2018 Feb;67(2):311-325. PMID: 29264697.

Spear TT, Foley KC, Garrett-Mayer E, **Nishimura MI**. **TCR modifications that enhance chain pairing in gene-modified T cells can augment cross-reactivity and alleviate CD8 dependence.** *J Leukoc Biol.* 2018 May;103(5):973-983. doi: 10.1002/JLB.5A0817-314R. Epub 2018 Jan 19. PMID: 29350789; PMCID: PMC6133711.

Jacks RD, Keller TJ, Nelson A, **Nishimura MI**, White P, Iwashima M. **Cell intrinsic characteristics of human cord blood naïve CD4T cells.** *Immunol Lett.* 2018 Jan;193:51-57. doi: 10.1016/j.imlet.2017.11.011. Epub 2017 Nov 24. PMID: 29180044; PMCID: PMC5751702.

Chatterjee S, Daenthanasamak A, Chakraborty P, Wyatt MW, Dhar P, Selvam SP, Fu J, Zhang J, ..., **Nishimura MI**, ..., Mehrotra S. **CD38-NAD<sup>+</sup> Axis Regulates Immunotherapeutic Anti-Tumor T Cell Response.** *Cell Metab.* 2018 Jan 9;27(1):85-100.e8. doi: 10.1016/j.cmet.2017.10.006. Epub 2017 Nov 9. PMID: 29129787; PMCID: PMC5837048.

Moore T, Wagner CR, Scurti GM, Hutchens KA, Godellas C, Clark AL, Kolawole EM, Hellman LM, Singh NK, ..., **Nishimura MI**. **Clinical and immunologic evaluation of three metastatic melanoma patients treated with autologous melanoma-reactive TCR-transduced T cells.** *Cancer Immunol Immunother.* 2018 Feb;67(2):311-325. doi: 10.1007/s00262-017-2073-0. Epub 2017 Oct 20. Erratum in: *Cancer Immunol Immunother.* 2017 Dec 20;: PMID: 29052782; PMCID: PMC5935006.

Wrangle J, Paulos CM, Smith TW Jr, **Nishimura MI**, Rubinstein MP. **Inducible Enhancement of T Cell Function and Anti-tumor Activity after Adoptive Transfer.** *Mol Ther.* 2017 Sep 6;25(9):1995-1996. doi: 10.1016/j.ymthe.2017.08.002. Epub 2017 Aug 19. PMID: 28830671; PMCID: PMC5589154.

Muller L, Simms P, Hong CS, **Nishimura MI**, Jackson EK, Watkins SC, Whiteside TL. **Human tumor-derived exosomes (TEX) regulate Treg functions via cell surface signaling rather than uptake mechanisms.** *Oncoimmunology.* 2017 Jul 19;6(8):e1261243. doi: 10.1080/2162402X.2016.1261243. PMID: 28919985; PMCID: PMC5593709.

Spear TT, Wang Y, Foley KC, Murray DC, Scurti GM, Simms PE, Garrett-Mayer E, Hellman LM, Baker BM, **Nishimura MI. Critical biological parameters modulate affinity as a determinant of function in T-cell receptor gene-modified T-cells.** *Cancer Immunol Immunother.* 2017 Nov;66(11):1411-1424. doi: 10.1007/s00262-017-2032-9. Epub 2017 Jun 20. PMID: 28634816; PMCID: PMC5647210.

Lövgren T, Sarhan D, Truxová I, Choudhary B, Maas R, Melief J, Nyström M, Edbäck U, ..., **Nishimura M, ..., Kiessling R. Enhanced stimulation of human tumor-specific T cells by dendritic cells matured in the presence of interferon- $\gamma$  and multiple toll-like receptor agonists.** *Cancer Immunol Immunother.* 2017 Oct;66(10):1333-1344. doi: 10.1007/s00262-017-2029-4. Epub 2017 Jun 10. PMID: 28601925; PMCID: PMC5626805.

Wang Y, Singh NK, Spear TT, Hellman LM, Piepenbrink KH, McMahan RH, Rosen HR, Vander Kooi CW, **Nishimura MI, Baker BM. How an alloreactive T-cell receptor achieves peptide and MHC specificity.** *Proc Natl Acad Sci U S A.* 2017 Jun 13;114(24):E4792-E4801. doi: 10.1073/pnas.1700459114. Epub 2017 Jun 1. PMID: 28572406; PMCID: PMC5474831.

Spear TT, **Nishimura MI, Simms PE. Comparative exploration of multidimensional flow cytometry software: a model approach evaluating T cell polyfunctional behavior.** *J Leukoc Biol.* 2017 Aug;102(2):551-561. doi: 10.1189/jlb.6A0417-140R. Epub 2017 May 26. PMID: 28550117; PMCID: PMC6608077.

Sandri S, De Sanctis F, Lamolinara A, Boschi F, Poffe O, Trovato R, Fiore A, Sartori S, ..., **Nishimura MI, ..., Ugel S. Effective control of acute myeloid leukaemia and acute lymphoblastic leukaemia progression by telomerase specific adoptive T-cell therapy.** *Oncotarget.* 2017 May 23;8(50):86987-87001. doi: 10.18632/oncotarget.18115. PMID: 29152058; PMCID: PMC5675610.

Foley KC, Spear TT, Murray DC, Nagato K, Garrett-Mayer E, **Nishimura MI. HCV T Cell Receptor Chain Modifications to Enhance Expression, Pairing, and Antigen Recognition in T Cells for Adoptive Transfer.** *Mol Ther Oncolytics.* 2017 May 17;5:105-115. doi: 10.1016/j.omto.2017.05.004. PMID: 28573185; PMCID: PMC5447397.

Mehrotra S, Britten CD, Chin S, Garrett-Mayer E, Cloud CA, Li M, Scurti G, Salem ML, ..., **Nishimura MI, ..., Cole DJ. Vaccination with poly(IC:LC) and peptide-pulsed autologous dendritic cells in patients with pancreatic cancer.** *J Hematol Oncol.* 2017 Apr 7;10(1):82. doi: 10.1186/s13045-017-0459-2. PMID: 28388966; PMCID: PMC5384142.

Kesarwani P, Chakraborty P, Gudi R, Chatterjee S, Scurti G, Toth K, Simms P, Husain M, ..., **Nishimura MI, Mehrotra S. Blocking TCR restimulation induced necroptosis in adoptively transferred T cells improves tumor control.** *Oncotarget.* 2016 Oct 25;7(43):69371-69383. doi: 10.18632/oncotarget.12674. PMID: 27750220; PMCID: PMC5342484.

Scheffel MJ, Scurti G, Simms P, Garrett-Mayer E, Mehrotra S, **Nishimura MI**, Voelkel-Johnson C. **Efficacy of Adoptive T-cell Therapy Is Improved by Treatment with the Antioxidant N-Acetyl Cysteine, Which Limits Activation-Induced T-cell Death.** *Cancer Res.* 2016 Oct 15;76(20):6006-6016. doi: 10.1158/0008-5472.CAN-16-0587. PMID: 27742673; PMCID: PMC5074089.

Banerjee A, Thyagarajan K, Chatterjee S, Chakraborty P, Kesarwani P, Soloshchenko M, Al-Homrani M, Andrijauskaite K, ..., **Nishimura MI**, Mehrotra S. **Lack of p53 Augments Antitumor Functions in Cytolytic T Cells.** *Cancer Res.* 2016 Sep 15;76(18):5229-5240. doi: 10.1158/0008-5472.CAN-15-1798. Epub 2016 Jul 27. PMID: 27466285; PMCID: PMC5026612.

Spear TT, Nagato K, **Nishimura MI.** **Strategies to genetically engineer T cells for cancer immunotherapy.** *Cancer Immunol Immunother.* 2016 Jun;65(6):631-49. doi: 10.1007/s00262-016-1842-5. Epub 2016 May 2. PMID: 27138532; PMCID: PMC5424608.

Sandri S, Bobisse S, Moxley K, Lamolinara A, De Sanctis F, Boschi F, Sbarbati A, Fracasso G, ..., **Nishimura MI**, ..., Ugel S. **Feasibility of Telomerase-Specific Adoptive T-cell Therapy for B-cell Chronic Lymphocytic Leukemia and Solid Malignancies.** *Cancer Res.* 2016 May 1;76(9):2540-51. doi:10.1158/0008-5472.CAN-15-2318. PMID: 27197263.

Klarquist J, Eby JM, Henning SW, Li M, Wainwright DA, Westerhof W, Luiten RM, **Nishimura MI**, Le Poole IC. **Functional cloning of a gp100-reactive T-cell receptor from vitiligo patient skin.** *Pigment Cell Melanoma Res.* 2016 May;29(3):379-84. doi: 10.1111/pcmr.12458. Epub 2016 Mar 4. PMID: 26824221; PMCID: PMC6095469.

Spear TT, Riley TP, Lyons GE, Callender GG, Roszkowski JJ, Wang Y, Simms PE, Scurti GM, Foley KC, ..., **Nishimura MI.** **Hepatitis C virus-cross-reactive TCR gene-modified T cells: a model for immunotherapy against diseases with genomic instability.** *J Leukoc Biol.* 2016 Sep;100(3):545-57. doi: 10.1189/jlb.2A1215-561R. Epub 2016 Feb 26. PMID: 26921345; PMCID: PMC4982612.

Hellman LM, Yin L, Wang Y, Blevins SJ, Riley TP, Belden OS, Spear TT, **Nishimura MI**, Stern LJ, Baker BM. **Differential scanning fluorimetry based assessments of the thermal and kinetic stability of peptide-MHC complexes.** *J Immunol Methods.* 2016 May;432:95-101. doi: 10.1016/j.jim.2016.02.016. Epub 2016 Feb 18. PMID: 26906089; PMCID: PMC4837003.

Blevins SJ, Pierce BG, Singh NK, Riley TP, Wang Y, Spear TT, **Nishimura MI**, Weng Z, Baker BM. **How structural adaptability exists alongside HLA-A2 bias in the human  $\alpha\beta$  TCR repertoire.** *Proc Natl Acad Sci U S A.* 2016 Mar 1;113(9):E1276-85. doi: 10.1073/pnas.1522069113. Epub 2016 Feb 16. PMID: 26884163; PMCID: PMC4780628.

Spear TT, Callender GG, Roszkowski JJ, Moxley KM, Simms PE, Foley KC, Murray DC, Scurti GM, Li M, Thomas JT, Langerman A, Garrett-Mayer E, Zhang Y, **Nishimura MI.** **TCR gene-modified T cells can efficiently treat established hepatitis C-associated hepatocellular carcinoma tumors.** *Cancer Immunol Immunother.* 2016 Mar;65(3):293-304. doi: 10.1007/s00262-016-1800-2. Epub 2016 Feb 3. PMID: 26842125; PMCID: PMC4887146.

Shang N, Arteaga M, Zaidi A, Cotler SJ, Breslin P, Ding X, Kuo P, **Nishimura M**, Zhang J, Qiu W. **FAK Kinase Activity Is Required for the Progression of c-MET/ $\beta$ -Catenin-Driven Hepatocellular Carcinoma**. *Gene Expr*. 2016;17(1):79-88. doi: 10.3727/105221616X691604. Epub 2016 May 2. PMID: 27142958; PMCID: PMC5064945.

Takami M, Fujimaki K, **Nishimura MI**, Iwashima M. **Cutting Edge: AhR Is a Molecular Target of Calcitriol in Human T Cells**. *J Immunol*. 2015 Sep 15;195(6):2520-3. doi: 10.4049/jimmunol.1500344. Epub 2015 Aug 14. PMID: 26276877; PMCID: PMC4561210.

You D, Xin J, Volk A, Wei W, Schmidt R, Scurti G, Nand S, Breuer EK, Kuo PC, Breslin P, Kini AR, **Nishimura MI**, Zeleznik-Le NJ, Zhang J. **FAK mediates a compensatory survival signal parallel to PI3K-AKT in PTEN-null T-ALL cells**. *Cell Rep*. 2015 Mar 31;10(12):2055-68. doi: 10.1016/j.celrep.2015.02.056. Epub 2015 Mar 19. PMID: 25801032; PMCID: PMC7001526.

Kesarwani P, Al-Khami AA, Scurti G, Thyagarajan K, Kaur N, Husain S, Fang Q, Naga OS, Simms P, Beeson G, Voelkel-Johnson C, Garrett-Mayer E, Beeson CC, **Nishimura MI**, Mehrotra S. **Promoting thiol expression increases the durability of antitumor T-cell functions**. *Cancer Res*. 2014 Nov 1;74(21):6036-6047. doi: 10.1158/0008-5472.CAN-14-1084. Epub 2014 Aug 27. PMID: 25164014; PMCID: PMC4216764.

Eby JM, Kang HK, Klarquist J, Chatterjee S, Mosenson JA, **Nishimura MI**, Garrett-Mayer E, Longley BJ, Engelhard VH, Mehrotra S, Le Poole IC. **Immune responses in a mouse model of vitiligo with spontaneous epidermal de- and repigmentation**. *Pigment Cell Melanoma Res*. 2014 Nov;27(6):1075-85. doi: 10.1111/pcmr.12284. Epub 2014 Jul 21. PMID: 24935676; PMCID: PMC4470702.

Chatterjee S, Eby JM, Al-Khami AA, Soloshchenko M, Kang HK, Kaur N, Naga OS, Murali A, **Nishimura MI**, Caroline Le Poole I, Mehrotra S. **A quantitative increase in regulatory T cells controls development of vitiligo**. *J Invest Dermatol*. 2014 May;134(5):1285-1294. doi: 10.1038/jid.2013.540. Epub 2013 Dec 23. PMID: 24366614; PMCID: PMC3989443.

Mosenson JA, Zloza A, Nieland JD, Garrett-Mayer E, Eby JM, Huelsmann EJ, Kumar P, Denman CJ, Lacek AT, Kohlhapp FJ, Alamiri A, Hughes T, Bines SD, Kaufman HL, Overbeck A, Mehrotra S, Hernandez C, **Nishimura MI**, Guevara-Patino JA, Le Poole IC. **Mutant HSP70 reverses autoimmune depigmentation in vitiligo**. *Sci Transl Med*. 2013 Feb 27;5(174):174ra28. doi: 10.1126/scitranslmed.3005127. PMID: 23447019; PMCID: PMC3912753.

Galon J, Pagès F, Marincola FM, Angell HK, Thurin M, Lugli A, Zlobec I, Berger A, ..., **Nishimura MI**, ..., Fox BA. **Cancer classification using the Immunoscore: a worldwide task force**. *J Transl Med*. 2012 Oct 3;10:205. doi: 10.1186/1479-5876-10-205. PMID: 23034130; PMCID: PMC3554496.

Mehrotra S, Al-Khami AA, Klarquist J, Husain S, Naga O, Eby JM, Murali AK, Lyons GE, Li M, ..., **Nishimura MI. A coreceptor-independent transgenic human TCR mediates anti-tumor and anti-self immunity in mice.** J Immunol. 2012 Aug 15;189(4):1627-38. doi: 10.4049/jimmunol.1103271. Epub 2012 Jul 13. PMID: 22798675; PMCID: PMC3674773.

Fox BA, Schendel DJ, Butterfield LH, Aamdal S, Allison JP, Ascierto PA, Atkins MB, Bartunkova J, ..., **Nishimura MI, ...**, Disis ML. **Defining the critical hurdles in cancer immunotherapy.** J Transl Med. 2011 Dec 14;9:214. doi: 10.1186/1479-5876-9-214. PMID: 22168571; PMCID: PMC3338100.

Narimatsu S, Yoshioka Y, Morishige T, Yao X, Tsunoda S, Tsutsumi Y, **Nishimura MI**, Mukai Y, Okada N, Nakagawa S. **Structure-activity relationship of T-cell receptors based on alanine scanning.** Biochem Biophys Res Commun. 2011 Dec 2;415(4):558-62. doi: 10.1016/j.bbrc.2011.10.092. Epub 2011 Oct 31. PMID: 22079637.

Al-Khami AA, Mehrotra S, **Nishimura MI. Adoptive immunotherapy of cancer: Gene transfer of T cell specificity.** Self Nonself. 2011 Apr;2(2):80-84. doi: 10.4161/self.2.2.15832. Epub 2011 Apr 1. PMID: 22299059; PMCID: PMC3268993.

Zloza A, Jagoda MC, Lyons GE, Graves MC, Kohlhapp FJ, O'Sullivan JA, Lacey AT, **Nishimura MI**, Guevara-Patiño JA. **CD8 co-receptor promotes susceptibility of CD8+ T cells to transforming growth factor- $\beta$  (TGF- $\beta$ )-mediated suppression.** Cancer Immunol Immunother. 2011 Feb;60(2):291-7. doi: 10.1007/s00262-010-0962-6. Epub 2010 Dec 31. PMID: 21193909; PMCID: PMC4507403.

McMahan RH, Golden-Mason L, **Nishimura MI**, McMahan BJ, Kemper M, Allen TM, Gretch DR, Rosen HR. **Tim-3 expression on PD-1+ HCV-specific human CTLs is associated with viral persistence, and its blockade restores hepatocyte-directed in vitro cytotoxicity.** J Clin Invest. 2010 Dec;120(12):4546-57. doi: 10.1172/JCI43127. Epub 2010 Nov 15. Erratum in: J Clin Invest. 2011 Feb 1;121(2):821. PMID: 21084749; PMCID: PMC2994339.

Mimura K, Ando T, Poschke I, Mougiakakos D, Johansson CC, Ichikawa J, Okita R, **Nishimura MI**, Handke D, ..., Kiessling R. **T cell recognition of HLA-A2 restricted tumor antigens is impaired by the oncogene HER2.** Int J Cancer. 2011 Jan 15;128(2):390-401. doi: 10.1002/ijc.25613. Epub 2010 Oct 13. PMID: 20715101.

Zhang Y, Liu Y, Moxley KM, Golden-Mason L, Hughes MG, Liu T, Heemskerk MH, Rosen HR, **Nishimura MI. Transduction of human T cells with a novel T-cell receptor confers anti-HCV reactivity.** PLoS Pathog. 2010 Jul 29;6(7):e1001018. doi: 10.1371/journal.ppat.1001018. PMID: 20686664; PMCID: PMC2912399.

Brusko TM, Koya RC, Zhu S, Lee MR, Putnam AL, McClymont SA, **Nishimura MI**, Han S, Chang LJ, ..., Bluestone JA. **Human antigen-specific regulatory T cells generated by T cell receptor gene**

**transfer.** PLoS One. 2010 Jul 22;5(7):e11726. doi: 10.1371/journal.pone.0011726. PMID: 20668510; PMCID: PMC2908680.

Koya RC, Mok S, Comin-Anduix B, Chodon T, Radu CG, **Nishimura MI**, Witte ON, Ribas A. **Kinetic phases of distribution and tumor targeting by T cell receptor engineered lymphocytes inducing robust antitumor responses.** Proc Natl Acad Sci U S A. 2010 Aug 10;107(32):14286-91. doi: 10.1073/pnas.1008300107. Epub 2010 Jul 12. PMID: 20624956; PMCID: PMC2922609.

Klarquist J, Denman CJ, Hernandez C, Wainwright DA, Strickland FM, Overbeck A, Mehrotra S, Nishimura MI, Le Poole IC. **Reduced skin homing by functional Treg in vitiligo.** Pigment Cell Melanoma Res. 2010 Apr;23(2):276-86. doi: 10.1111/j.1755-148X.2010.00688.x. Epub 2010 Feb 19. Erratum in: Pigment Cell Melanoma Res. 2010 Jun;23(3):477. Wainwright, Derek J [corrected to Wainwright, Derek A]. PMID: 20175879; PMCID: PMC3778930.

Norell H, Zhang Y, McCracken J, Martins da Palma T, Leshner A, Liu Y, Roszkowski JJ, Temple A, ..., Guevara-Patiño J, **Nishimura MI**. **CD34-based enrichment of genetically engineered human T cells for clinical use results in dramatically enhanced tumor targeting.** Cancer Immunol Immunother. 2010 Jun;59(6):851-62. doi: 10.1007/s00262-009-0810-8. Epub 2010 Jan 6. PMID: 20052466; PMCID: PMC3736983.

Klarquist J, Barfuss A, Kandala S, Reust MJ, Braun RK, Hu J, Dilling DF, McKee MD, ..., **Nishimura MI**, Le Poole IC. **Melanoma-associated antigen expression in lymphangiomyomatosis renders tumor cells susceptible to cytotoxic T cells.** Am J Pathol. 2009 Dec;175(6):2463-72. doi: 10.2353/ajpath.2009.090525. Epub 2009 Nov 5. PMID: 19893037; PMCID: PMC2789635.

Norell H, Martins da Palma T, Leshner A, Kaur N, Mehrotra M, Naga OS, Spivey N, Olafimihan S, ..., **Nishimura MI**, ..., Mehrotra S. **Inhibition of superoxide generation upon T-cell receptor engagement rescues Mart-1(27-35)-reactive T cells from activation-induced cell death.** Cancer Res. 2009 Aug 1;69(15):6282-9. doi: 10.1158/0008-5472.CAN-09-1176. Epub 2009 Jul 28. PMID: 19638595; PMCID: PMC2719828.

Ando T, Mimura K, Johansson CC, Hanson MG, Mougiakakos D, Larsson C, Martins da Palma T, Sakurai D, ..., **Nishimura MI**, Kiessling R. **Transduction with the antioxidant enzyme catalase protects human T cells against oxidative stress.** J Immunol. 2008 Dec 15;181(12):8382-90. doi: 10.4049/jimmunol.181.12.8382. PMID: 19050255.

Voelkl S, Moore TV, Rehli M, **Nishimura MI**, Mackensen A, Fischer K. **Characterization of MHC class-I restricted TCRalpha+ CD4- CD8- double negative T cells recognizing the gp100 antigen from a melanoma patient after gp100 vaccination.** Cancer Immunol Immunother. 2009 May;58(5):709-18. doi: 10.1007/s00262-008-0593-3. Epub 2008 Oct 3. PMID: 18836718; PMCID: PMC2832593.

Moore TV, Lyons GE, Brasic N, Roszkowski JJ, Voelkl S, Mackensen A, Kast WM, Le Poole IC, **Nishimura MI**. **Relationship between CD8-dependent antigen recognition, T cell functional**



**avidity, and tumor cell recognition.** *Cancer Immunol Immunother.* 2009 May;58(5):719-28. doi: 10.1007/s00262-008-0594-2. Epub 2008 Oct 3. PMID: 18836717; PMCID: PMC2773431.

Rubinstein MP, Salem ML, Kadima AN, Nguyen CL, Gillanders WE, **Nishimura MI**, Cole DJ. **Loss of T cell-mediated antitumor immunity after construct-specific downregulation of retrovirally encoded T-cell receptor expression in vivo.** *Cancer Gene Ther.* 2009 Feb;16(2):171-83. doi: 10.1038/cgt.2008.63. Epub 2008 Aug 8. PMID: 18690205; PMCID: PMC3065370.

Diaz-Montero CM, Salem ML, **Nishimura MI**, Garrett-Mayer E, Cole DJ, Montero AJ. **Increased circulating myeloid-derived suppressor cells correlate with clinical cancer stage, metastatic tumor burden, and doxorubicin-cyclophosphamide chemotherapy.** *Cancer Immunol Immunother.* 2009 Jan;58(1):49-59. doi: 10.1007/s00262-008-0523-4. Epub 2008 Apr 30. PMID: 18446337; PMCID: PMC3401888.

Deng L, Langley RJ, Brown PH, Xu G, Teng L, Wang Q, Gonzales MI, Callender GG, **Nishimura MI**, ..., Mariuzza RA. **Structural basis for the recognition of mutant self by a tumor-specific, MHC class II-restricted T cell receptor.** *Nat Immunol.* 2007 Apr;8(4):398-408. doi: 10.1038/ni1447. Epub 2007 Mar 4. PMID: 17334368.

McKee MD, Fichera A, **Nishimura MI.** **T cell immunotherapy.** *Front Biosci.* 2007 Jan 1;12:919-32. doi: 10.2741/2114. PMID: 17127349.

Lyons GE, Moore T, Brasic N, Li M, Roszkowski JJ, **Nishimura MI.** **Influence of human CD8 on antigen recognition by T-cell receptor-transduced cells.** *Cancer Res.* 2006 Dec 1;66(23):11455-61. doi: 10.1158/0008-5472.CAN-06-2379. PMID: 17145893.

Oyarbide-Valencia K, van den Boorn JG, Denman CJ, Li M, Carlson JM, Hernandez C, **Nishimura MI**, Das PK, Luiten RM, Le Poole IC. **Therapeutic implications of autoimmune vitiligo T cells.** *Autoimmun Rev.* 2006 Aug;5(7):486-92. doi: 10.1016/j.autrev.2006.03.012. Epub 2006 May 6. PMID: 16920575; PMCID: PMC3462656.

Callender GG, Rosen HR, Roszkowski JJ, Lyons GE, Li M, Moore T, Brasic N, McKee MD, **Nishimura MI.** **Identification of a hepatitis C virus-reactive T cell receptor that does not require CD8 for target cell recognition.** *Hepatology.* 2006 May;43(5):973-81. doi: 10.1002/hep.21157. PMID: 16628627.

Duval L, Schmidt H, Kaltoft K, Fode K, Jensen JJ, Sorensen SM, **Nishimura MI**, von der Maase H. **Adoptive transfer of allogeneic cytotoxic T lymphocytes equipped with a HLA-A2 restricted MART-1 T-cell receptor: a phase I trial in metastatic melanoma.** *Clin Cancer Res.* 2006 Feb 15;12(4):1229-36. doi: 10.1158/1078-0432.CCR-05-1485. PMID: 16489078.

Lyons GE, Roszkowski JJ, Man S, Yee C, Kast WM, **Nishimura MI.** **T-cell receptor tetramer binding or the lack thereof does not necessitate antigen reactivity in T-cell receptor**

**transduced T cells.** Cancer Immunol Immunother. 2006 Sep;55(9):1142-50. doi: 10.1007/s00262-005-0103-9. Epub 2005 Dec 23. PMID: 16374636.

Fujii S, Nishimura MI, Lotze MT. **Regulatory balance between the immune response of tumor antigen-specific T-cell receptor gene-transduced CD8 T cells and the suppressive effects of tolerogenic dendritic cells.** Cancer Sci. 2005 Dec;96(12):897-902. doi: 10.1111/j.1349-7006.2005.00124.x. PMID: 16367910.

McKee MD, Roszkowski JJ, Nishimura MI. **T cell avidity and tumor recognition: implications and therapeutic strategies.** J Transl Med. 2005 Sep 20;3:35. doi: 10.1186/1479-5876-3-35. PMID: 16174302; PMCID: PMC1262785.

Kaplan BL, Norell H, Callender GG, Ohlum T, Kiessling R, Nishimura MI. **Interferon-gamma renders tumors that express low levels of Her-2/neu sensitive to cytotoxic T cells.** Cancer Immunol Immunother. 2006 Jun;55(6):653-62. doi: 10.1007/s00262-005-0050-5. Epub 2005 Sep 6. PMID: 16151808.

Wu L, Estrada O, Zaborina O, Bains M, Shen L, Kohler JE, Patel N, Musch MW, ..., Nishimura MI, ..., Alverdy JC. **Recognition of host immune activation by Pseudomonas aeruginosa.** Science. 2005 Jul 29;309(5735):774-7. doi: 10.1126/science.1112422. PMID: 16051797.

Roszkowski JJ, Lyons GE, Kast WM, Yee C, Van Besien K, Nishimura MI. **Simultaneous generation of CD8+ and CD4+ melanoma-reactive T cells by retroviral-mediated transfer of a single T-cell receptor.** Cancer Res. 2005 Feb 15;65(4):1570-6. doi: 10.1158/0008-5472.CAN-04-2076. PMID: 15735047.

Nishimura MI, Roszkowski JJ, Moore TV, Brasic N, McKee MD, Clay TM. **Antigen recognition and T-cell biology.** Cancer Treat Res. 2005;123:37-59. doi: 10.1007/0-387-27545-2\_2. PMID: 16211865.

Kaplan BL, Moore TV, Schreiber K, Callender GG, Schreiber H, Nishimura MI. **A new murine tumor model for studying HLA-A2-restricted anti-tumor immunity.** Cancer Lett. 2005 Jun 16;224(1):153-66. doi: 10.1016/j.canlet.2004.11.035. Epub 2004 Dec 25. PMID: 15911111.

Langerman A, Callender GG, Nishimura MI. **Retroviral transduction of peptide stimulated T cells can generate dual T cell receptor-expressing (bifunctional) T cells reactive with two defined antigens.** J Transl Med. 2004 Dec 8;2(1):42. doi: 10.1186/1479-5876-2-42. PMID: 15588290; PMCID: PMC544585.

Rosen HR, Hinrichs DJ, Leistikow RL, Callender G, Wertheimer AM, Nishimura MI, Lewinsohn DM. **Cutting edge: identification of hepatitis C virus-specific CD8+ T cells restricted by donor HLA alleles following liver transplantation.** J Immunol. 2004 Nov 1;173(9):5355-9. doi: 10.4049/jimmunol.173.9.5355. PMID: 15494481.

Klyushnenkova EN, Ponniah S, Rodriguez A, Kodak J, Mann DL, Langerman A, **Nishimura MI**, Alexander RB. **CD4 and CD8 T-lymphocyte recognition of prostate specific antigen in granulomatous prostatitis.** J Immunother. 2004 Mar-Apr;27(2):136-46. doi: 10.1097/00002371-200403000-00007. PMID: 14770085.

Lee KM, Bhawan S, Majima T, Wei H, **Nishimura MI**, Yagita H, Kumar V. **Cutting edge: the NK cell receptor 2B4 augments antigen-specific T cell cytotoxicity through CD48 ligation on neighboring T cells.** J Immunol. 2003 May 15;170(10):4881-5. doi: 10.4049/jimmunol.170.10.4881. PMID: 12734329.

Kaplan BL, Yu DC, Clay TM, **Nishimura MI**. **Redirecting T lymphocyte specificity using T cell receptor genes.** Int Rev Immunol. 2003 May-Aug;22(3-4):229-53. doi: 10.1080/08830180305227. PMID: 12745641.

Roszkowski JJ, Yu DC, Rubinstein MP, McKee MD, Cole DJ, **Nishimura MI**. **CD8-independent tumor cell recognition is a property of the T cell receptor and not the T cell.** J Immunol. 2003 Mar 1;170(5):2582-9. doi: 10.4049/jimmunol.170.5.2582. PMID: 12594285.

Rubinstein MP, Kadima AN, Salem ML, Nguyen CL, Gillanders WE, **Nishimura MI**, Cole DJ. **Transfer of TCR genes into mature T cells is accompanied by the maintenance of parental T cell avidity.** J Immunol. 2003 Feb 1;170(3):1209-17. doi: 10.4049/jimmunol.170.3.1209. PMID: 12538678.

Eiben GL, da Silva DM, Fausch SC, Le Poole IC, **Nishimura MI**, Kast WM. **Cervical cancer vaccines: recent advances in HPV research.** Viral Immunol. 2003;16(2):111-21. doi: 10.1089/088282403322017866. PMID: 12828864.

Clay TM, **Nishimura MI**. **Retroviral transfer of T-cell receptor genes into human peripheral blood lymphocytes.** Methods Mol Biol. 2003;215:227-34. doi: 10.1385/1-59259-345-3:227. PMID: 12512302.

Spiotto MT, Yu P, Rowley DA, **Nishimura MI**, Meredith SC, Gajewski TF, Fu YX, Schreiber H. **Increasing tumor antigen expression overcomes "ignorance" to solid tumors via crosspresentation by bone marrow-derived stromal cells.** Immunity. 2002 Dec;17(6):737-47. doi: 10.1016/s1074-7613(02)00480-6. PMID: 12479820.

Dudley ME, Wunderlich J, **Nishimura MI**, Yu D, Yang JC, Topalian SL, Schwartzentruber DJ, Hwu P, Marincola FM, ..., Rosenberg SA. **Adoptive transfer of cloned melanoma-reactive T lymphocytes for the treatment of patients with metastatic melanoma.** J Immunother. 2001 Jul-Aug;24(4):363-73. doi: 10.1097/00002371-200107000-00012. PMID: 11565838.

Orentas RJ, Roskopf SJ, Nolan GP, **Nishimura MI**. **Retroviral transduction of a T cell receptor specific for an Epstein-Barr virus-encoded peptide.** Clin Immunol. 2001 Feb;98(2):220-8. doi: 10.1006/clim.2000.4977. PMID: 11161978.

McKee MD, Clay TM, Diamond RA, Rosenberg SA, Nishimura MI. **Quantitation of T-cell receptor frequencies by competitive polymerase chain reaction: dynamics of T-cell clonotype frequencies in an expanding tumor-infiltrating lymphocyte culture.** J Immunother. 2000 Jul-Aug;23(4):419-29. doi: 10.1097/00002371-200007000-00005. PMID: 10916751.

Ladányi A, Nishimura MI, Rosenberg SA, Yang JC. **Tumorigenicity and immunogenicity of murine tumor cells expressing an MHC class II molecule with a covalently bound antigenic peptide.** J Immunother. 2000 Jan;23(1):36-47. doi: 10.1097/00002371-200001000-00006. PMID: 10687136.