Robert J. Canter, M.D.

Philosophy of Care
Dr. Canter's philosophy is to have coordinated and integrated care for all patients across the spectrum of their cancer care.

Clinical Interests
Dr. Canter is a surgical oncologist who specializes in the surgical and multi-disciplinary management of soft tissue sarcomas of all locations, including the extremity, the retroperitoneum, and body wall. He has devoted his entire career to advancing all aspects of care for sarcoma patients.

Research/Academic Interests
Dr. Canter's research has a strong focus on multi-species models for natural killer (NK) cell immunotherapy, including adoptive therapy in dogs with spontaneous cancers and murine models of solid tumors. Dr. Canter's group is one of a select group of labs internationally who are studying dog NK cells, and they have completed a first-in-dog clinical trial of palliative radiation with intra-tumoral NK cells for dog with naturally-occurring osteosarcoma. His research is now focused on further characterization of the activating and inhibitory receptors of NK cells as part of a multi-species evaluation of optimizing NK cancer immunotherapy, and they are broadening their dog canine immunotherapy comparative oncology clinical trials with other novel immune agents.

Title
Professor, Department of Surgery
Chief

Specialty
Cancer, Surgery - Oncology, Sarcoma

Department
Surgery

Division
Surgical Oncology

Center/Program Affiliation
UC Davis Comprehensive Cancer Center

Address/Phone
UC Davis Comprehensive Cancer Center, 2279 45th Street Sacramento, CA 95817
Phone: 916-734-5959

Additional Phone
Clinic Fax: 916-703-5265
Clinic Referral Phone: 800-362-5566
Physician Referrals: 800-4-UCDAVIS (800-482-3284)

Languages
French

Education
M.D., University of Pennsylvania School of Medicine, Philadelphia PA 1998
B.A., History, Princeton University, Princeton NJ 1992

Residency
Categorical Gen Residency, Hospital of the University of Pennsylvania, Philadelphia PA 1998-2005

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Fellowships

Surgical Oncology Clinical, Memorial Sloan-Kettering Cancer Center, New York NY 2005-2007
Surgical Oncology Research, Harrison Department of Surgical Research, University of Pennsylvania School of Medicine, Philadelphia PA 2001-2003

Board Certifications

American Board of Surgery

Professional Memberships

American Association of Immunologists (AAI)
American Society of Clinical Oncology
Connective Tissue Oncology Society
Society for Immunotherapy of Cancer
Society for Surgical Oncology

Honors and Awards

Dean's Award for Excellence in Mentoring of Junior Faculty, 2018
Dean's Team Award for Excellence in Research, Cancer Immunotherapy Comparative Oncology Team, 2016, 2017
Leadership Development Program, American Society of Clinical Oncology, 2016, 2017
Outstanding Faculty Member in a Teaching Capacity, UC Davis Department of Surgery, 2015, 2016
Christine and Helen Landgraf Award, UC Davis Comprehensive Cancer Center, 2013, 2015
Alpha Omega Alpha, University of Pennsylvania School of Medicine, 1998

Select Recent Publications

Judge SJ, Yanagisawa M, Sturgill IR, Bateni SB, Gingrich AA, Foltz JA, Lee DA, Modiano JF, Monjazeb AM, Culp WTN, Rebhun RB, Murphy WJ, Kent MS, Canter RJ. Blood and tissue biomarker analysis in dogs with osteosarcoma treated with palliative radiation and intra-tumoral autologous natural killer cell transfer. PLoS One. 2020 Feb 21;15(2):e0224775. doi:10.1371/journal.pone.0224775. PMID:32084139.

Gingrich AA, Modiano JF, Canter RJ. Characterization and Potential Applications of Dog Natural Killer Cells in Cancer Immunotherapy. J Clin Med. 2019 Oct 27;8(11):1802. doi:10.3390/jcm8111802. PMID:31717876.

Withers SS, Skorupski KA, York D, Choi JW, Woolard KD, Laufer-Amorim R, Sparger EE, Rodriguez CO, McSorley SJ, Monjazeb AM, Murphy WJ, Canter RJ, Rebhun RB. Association of macrophage and lymphocyte infiltration with outcome in canine osteosarcoma. Vet Comp Oncol. 2019 Mar;17(1):49-60. doi:10.1111/vco.12444. Epub 2018 Sep 19. PMID:30156029.

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Luna JI, Grossenbacher SK, Sturgill IR, Ames E, Judge SJ, Bouzid LA, Darrow MA, Murphy WJ, Canter RJ. Bortezomib Augments Natural Killer Cell Targeting of Stem-Like Tumor Cells. Cancers (Basel). 2019 Jan 14;11(1):85. doi:10.3390/cancers11010085. PMID:30646520.

Yanagisawa M, Gingrich AA, Judge S, Li CS, Wang N, Thorpe SW, Kirane AR, Bold RJ, Monjazeb AM, Canter RJ. Serum C-reactive Protein and Neutrophil/Lymphocyte Ratio After Neoadjuvant Radiotherapy in Soft Tissue Sarcoma. Anticancer Res. 2018 Mar;38(3):1491-1497. doi:10.21873/anticanres.12376. PMID:29491077.

Canter RJ, Grossenbacher SK, Foltz JA, Sturgill IR, Park JS, Luna JI, Kent MS, Culp WTN, Chen M, Modiano JF, Monjazeb AM, Lee DA, Murphy WJ. Radiotherapy enhances natural killer cell cytotoxicity and localization in pre-clinical canine sarcomas and first-in-dog clinical trial. J Immunother Cancer. 2017 Dec 19;5(1):98. doi:10.1186/s40425-017-0305-7. PMID:29254507.

Gingrich AA, Bateni SB, Monjazeb AM, Darrow MA, Thorpe SW, Kirane AR, Bold RJ, Canter RJ. Neoadjuvant Radiotherapy is Associated with R0 Resection and Improved Survival for Patients with Extremity Soft Tissue Sarcoma Undergoing Surgery: A National Cancer Database Analysis. Ann Surg Oncol. 2017 Oct;24(11):3252-3263. doi:10.1245/s10434-017-6019-8. Epub 2017 Jul 24. PMID:28741123.

Park JS, Withers SS, Modiano JF, Kent MS, Chen M, Luna JI, Culp WTN, Sparger EE, Rebhun RB, Monjazeb AM, Murphy WJ, Canter RJ. Canine cancer immunotherapy studies: linking mouse and human. J Immunother Cancer. 2016 Dec 20;4:97. doi:10.1186/s40425-016-0200-7. PMID: 28031824.

Ames E, Canter RJ, Grossenbacher SK, Mac S, Chen M, Smith RC, Hagino T, Perez-Cunningham J, Sckisel GD, Urayama S, Monjazeb AM, Fragoso RC, Sayers TJ, Murphy WJ. NK Cells Preferentially Target Tumor Cells with a Cancer Stem Cell Phenotype. J Immunol. 2015 Oct 15;195(8):4010-9.

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doi:10.4049/jimmunol.1500447. Epub 2015 Sep 11. PMID:26363055.

Ames E, Canter RJ, Grossenbacher SK, Mac S, Smith RC, Monjazeb AM, Chen M, Murphy WJ. Enhanced targeting of stem-like solid tumor cells with radiation and natural killer cells. Oncoimmunology. 2015 Jun 5;4(9):e1036212. doi:10.1080/2162402X.2015.1036212. PMID: 26405602.

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