



Shyam Rao, M.D., Ph.D.

Philosophy of Care	I strive to work with each individual patient to provide the highest-quality care while also advancing our current cancer treatments. I am committed to individualized patient care, state-of-the-art treatment strategies, teaching and research to provide the best possible patient care.
Clinical Interests	Dr. Rao is highly skilled in the use of Radiation Therapy. He has a special interest and significant expertise in the treatment of Head & Neck cancers and Skin cancers.
Research/Academic Interests	Dr. Rao's research has focused on improving the effectiveness of radiation therapy and reducing treatment-related side effects. He has been published numerous papers on improving the clinical efficacy of treatment and reducing sided effects of treatment for patients. He also remains active in basic science research to advance patient care.
Title	Associate Professor
Specialty	Radiation Oncology
Department	Radiation Oncology
Division	Radiation Oncology
Center/Program Affiliation	UC Davis Comprehensive Cancer Center
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Education	M.D., UC Irvine College of Medicine, Irvine CA 2005 Ph.D., Molecular & Cell Biology, UC Irvine, Irvine CA 2003 B.A., Molecular & Cell Biology, UC Berkeley, Berkeley CA 1994
Internships	Internal Medicine, Dartmouth University, Lebanon NH 2005-2006
Residency	Radiation Oncology, Washington University, St. Louis MO 2006-2010
Board Certifications	American Board of Radiology, Radiation Oncology
Professional Memberships	American Head and Neck Society American Society for Radiation Oncology (ASTRO)



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Honors and Awards

Educator of the Year, ARRO, 2015, 2021
Hope Center for Neurological Disorders Research Award, Washington University in St. Louis, 2009
Lloyd Guth Award for Excellence in Graduate Research, UC Irvine, 2003
UC Berkeley Outstanding Service Award, 1994
UC Regents Fellowship, 2000

Select Recent Publications

Chen W, Li Y, Yuan N, Qi J, Dyer BA, Sensoy L, Benedict SH, Shang L, Rao S, Rong Y. Clinical Enhancement in AI-Based Post-processed Fast-Scan Low-Dose CBCT for Head and Neck Adaptive Radiotherapy. *Front Artif Intell*. 2021 Feb 11;3:614384. doi:10.3389/frai.2020.614384. PMID: 33733226.

Dyer BA, Campos DD, Hernandez DD, Wright CL, Perks JR, Lucero SA, Bewley AF, Yamamoto T, Zhu X, Rao SS. Characterization and clinical validation of patient-specific three-dimensional printed tissue-equivalent bolus for radiotherapy of head and neck malignancies involving skin. *Phys Med*. 2020 Sep;77:138-145. doi:10.1016/j.ejmp.2020.08.010. Epub 2020 Aug 20. PMID: 32829102.

Evangelista LM, Bayoumi A, Dyer BA, Shukla RP, Rao SD, Belafsky PC. The relationship between posterior pharyngeal wall thickness and swallowing function after radiation therapy. *Acta Otolaryngol*. 2020 Apr 27;1-4. doi:10.1080/00016489.2020.1752933. PMID:32340517.

Harris BN, Pipkorn P, Nguyen KNB, Jackson RS, Rao S, Moore MG, Farwell DG, Bewley AF. Association of Adjuvant Radiation Therapy With Survival in Patients With Advanced Cutaneous Squamous Cell Carcinoma of the Head and Neck. *JAMA Otolaryngol Head Neck Surg*. 2019 Feb 1; 145(2):153-158. doi:10.1001/jamaoto.2018.3650. Erratum in: *JAMA Otolaryngol Head Neck Surg*. 2019 Feb 1;145(2):196. PMID:30570645.

Dyer BA, Nair CK, Deardorff CE, Wright CL, Perks JR, Rao SS. Linear Accelerator-Based Radiotherapy Simulation Using On-Board Kilovoltage Cone-Beam Computed Tomography for 3-Dimensional Volumetric Planning and Rapid Treatment in the Palliative Setting. *Technol Cancer Res Treat*. 2019 Jan 1;18:1533033819865623. doi:10.1177/1533033819865623. PMID:



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Cervenka BP, Rao S, Bewley AF. Head and Neck Cancer and the Elderly Patient. *Otolaryngol Clin North Am*. 2018 Aug;51(4):741-751. doi:10.1016/j.otc.2018.03.004. Epub 2018 May 23. PMID: 29801920.

Zhao X, Rao S. Surveillance imaging following treatment of head and neck cancer. *Semin Oncol*. 2017 Oct;44(5):323-329. doi:10.1053/j.seminoncol.2018.01.010. Epub 2018 Feb 9. PMID: 29580434.

Chen AM, Felix C, Wang PC, Hsu S, Basehart V, Garst J, Beron P, Wong D, Rosove MH, Rao S, Melanson H, Kim E, Palmer D, Qi L, Kelly K, Steinberg ML, Kupelian PA, Daly ME. Reduced-dose radiotherapy for human papillomavirus-associated squamous-cell carcinoma of the oropharynx: a single-arm, phase 2 study. *Lancet Oncology*. 2017 Jun 1;18(6):803-811. Epub 2017 Apr 20. doi: 10.1016/S1470-2045(17)30246-2

Rao SD, Saleh ZH, Setton J, Tam M, McBride SM, Riaz N, Deasy JO, Lee NY. Dose-volume factors correlating with trismus following chemoradiation for head and neck cancer. *Acta Oncol*. 2016;55(1):99-104. doi:10.3109/0284186X.2015.1037864. Epub 2015 Apr 29. PMID:25920361.

Rao SS, Thompson C, Cheng J, Haimovitz-Friedman A, Powell SN, Fuks Z, Kolesnick RN. Axitinib sensitization of high Single Dose Radiotherapy. *Radiother Oncol*. 2014 Apr;111(1):88-93. doi: 10.1016/j.radonc.2014.02.010. Epub 2014 Apr 29. PMID:24794795.

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