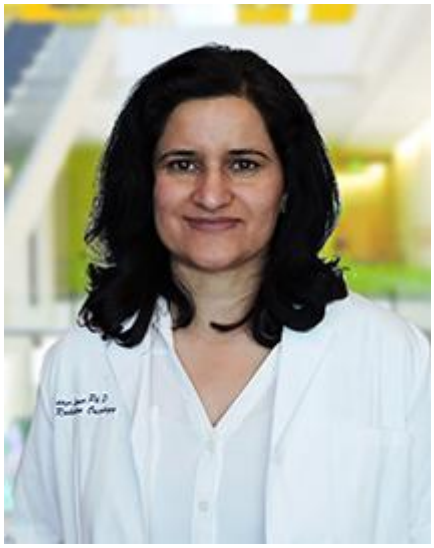
Manju Sharma



Manju Sharma, Ph.D.

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Division of Physics
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Professional Focus

Dr. Sharma is an Assistant Professor and ABR Certified Medical Physicist at the UCSF Department of Radiation Oncology. Dr. Sharma has previously worked at the Radiation Oncology department at the University of Rochester Medical Center (URMC) where she was an Assistant Professor. At URMC Dr. Sharma?s work focused on standardization and improvement of brain stereotactic radiation therapy. She has developed software tools for biological modeling of brain metastatic patients.

Dr. Sharma received a Ph.D. in Physics from Panjab University, in India. She got interested in the field of Medical Physics during her stint as a postdoctoral researcher in Radiation Oncology, at the University of Minnesota and Virginia Commonwealth University. She

followed her postdoctoral by finishing a CAMPEP Residency from Virginia Commonwealth University.

Dr. Sharma's clinical interests are in process mapping and standardization of radiation therapy clinical workflow. She is interested in developing techniques to automate the physics quality assurance and easy access to database.

Dr. Sharma?s research interests are in the adaptive radiation therapy and outcome analysis of SRS and SBRT treatments. She is interested in evaluating the limits of adaptive image guided radiation therapy for hypo-fractionated treatments and small field dosimetry..

Education

1998-2000	Panjab University, Chandigarh, India	MSc	Physics
2000-2006	Panjab University, Chandigarh, India	PhD	Physics
2013-2015	Virginia Commonwealth University	Clinical Medical Physics Resident	Department of Radiation Oncology

Professional Experience

2019-present	University of California, San Francisco	Assistant Professor	Radiation Oncology
2015-2019	University of Rochester Medical Center	Assistant Professor	Radiation Oncology
2010-2013	Virginia Commonwealth University	Postdoctoral Fellow	Radiation Oncology
2007-2010	University of Minnesota, Minneapolis	Postdoctoral Research Associate	Therapeutic Radiation Oncology

Awards & Honors

2005	International Travel Award to attend 20th International Conference on X-ray and Inner Shell processes in Melbourne, Australia
2011	Research on optical motion tracking system for total marrow irradiation featured as a research innovation in Medical Physic Web (IOS Publication)
2012	41 Ca pharmakcokinetic model highlighted in 2nd quarterly report of American College of Rheumatology (ACR) as a clinical guideline
2012	Research on dose invariance in adaptive radiation therapy of prostate cancer featured in quarterly newsletter of European Society of Therapeutic Radiology and Oncology (ESTRO)

2013	Research featured as HOT TOPIC in 55th Annual AAPM Meeting-Comparative Efficacy of Image-guided Adaptive Treatment Strategies for Prostate Radiation Therapy via Virtual Clinical Trials

Recent Significant Publications :

M Milano, M Sharma, SG Soltys, A Sahgal, KY Usuki, J Grimm, IE Naqa. ?Radiation-induced edema after single or multi-fraction stereotactic radiosurgery: A critical review.? Int J of Rad Onc Bio Phys accepted March 101 (2018) 344-357.

M Cummings, P Youn, DP Bergsma, KY Usuki, M Sharma, MC Schell, M Milano. ?Single fraction radiosurgery using conservative doses for brain metastases: durable responses in select primaries with limited toxicity. Neurosurgery nyx 427 (2017) 1-8.

C Guy, K Kharki, M Sharma, S Kim, ?Clinical investigation of surface dose in flattening-filter-free beams?. J of Clinical Medical Physics 17 (2016) 140-148.

M Sharma, E Fields, D Todor. ?A novel two-step optimization scheme for tandem and ovoid (T&O) HDR brachytherapy treatment for locally advanced cervical cancer.? Brachytherapy 14 (2015) 613-618.

H Xu, DJ Vile, M Sharma, JJ Gordon, JV Siebers. ?Coverage-based planning to accommodate deformable organ variations in prostate cancer treatment?. Med Phys 41 (2014) 101705.

SK Hui, G Fairchild, L Kidder, M Sharma, M Bhattacharya, S Jackson, C Le, A Petryk, MS Islam, D Yee. ?The influence of therapeutic radiation on the patterns of bone remodeling in ovary-intact and ovariectomized mice?. Calcif Tissue Intl, 92 (2013) 372-384.

M Sharma, E Weiss, JV Siebers. ?Dose deformation-invariance in adaptive prostate radiation therapy: implication for treatment simulations?. Radiother Oncol 105 (2012) 207-213.

SK Hui, M Sharma and M Bhattacharya. ?Liquid scintillator based quantitative measurement of dual radioisotopes (3H and 45Ca) in biological samples for bone remodeling studies?. Applied Radiation Isotopes 70 (1) (2012) 63-68.

SK Hui, G Fairchild, L Kidder, M Sharma, M Bhattacharya, S Johnson, C Le, D Yee. ?Skeletal remodeling following clinically relevant radiation-induced bone damage treated with zoledronic acid?. Calcif Tissue Intl 90 (2012) 40-49.

M Sharma, T Santos, N Papanikolopoulos and SK Hui. ?On the development of intra-fraction whole body motion tracking during total body irradiation?. J of Biomedical Optics 16 (2011) 1-8.

M Sharma, Z Bajzer and SK Hui. ?Development of empirical model using 41Ca for the clinical study of bone remodeling?. J of Clinical Pharmacokinetics 3 (2011) 191-199.

TO Ely, M Sharma, WK Lesniak, B Foster, B Lajos. ?Dendrimer nanocomposites as next generation X-ray contrast agents?. Conference, Nanomedicine: Nanotechnology, Biology, and

Medicine 3 (2007) 351.

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UCSF Main Site

Links
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[2] https://radonc.ucsf.edu/make-gift