



Ruben Fragoso, M.D., Ph.D.

Philosophy of Care

Undergoing radiation treatments can be scary and overwhelming. Each patient has a unique situation involving their specific diagnosis and the treatment of their disease. It is important to recognize the patient's unique issues in order to provide care for the patient as a whole person. It is also important to help patients understand their diagnosis so that they can make more informed decisions and understand their care.

Clinical Interests

Dr. Fragoso's main clinical activities involve the treatment of both benign and malignant central nervous tumors that can arise in the adult and pediatric populations. Radiation treatment techniques include Gamma Knife radiosurgery and fractionated radiation radiotherapy (3D or IMRT). Medical interests revolve around the better understanding of gliomas, particularly high grade gliomas.

Glioblastoma multiforme (GBM), a WHO grade IV glioma, carries a poor prognosis for which there have been modest therapeutic advances. My area of interest and research is focused on targeting specific cancer cells that are thought to perpetuate the tumor within the GBM itself. These "cancer stem cells" tend to be resistant to treatment. We are studying ways in which these cells can be targeted specifically and destroyed.

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B.A., Princeton University, Princeton, New Jersey, 1992

Internships Morristown Memorial Hospital, Morristown, New Jersey, 2005

Residency Thomas Jefferson University Hospital, Philadelphia, Pennsylvania, 2009

Professional Memberships American Association of Cancer Research
American College of Radiation Oncology
American Society of Therapeutic Radiology and Oncology
Radiological Society of North America

Select Recent Publications Donaldson JM, Kari C, Fragoso RC, Rodeck U, Williams JC. Design and development of masked therapeutic antibodies to limit off-target effects: Application to anti-EGFR antibodies. *Cancer Biol Ther*, 8(22). 2009

Fragoso RC, Pyarajan S, Irie HY, Burakoff SJ. A CD8/Lck transgene is able to drive thymocyte differentiation. *J Immunol*, 177(9): 6007-17. 2006

Fragoso R, Ren D, Zhang X, Su MW, Burakoff SJ, Jin YJ. Lipid raft distribution of CD4 depends on its palmitoylation and association with Lck, and evidence for CD4-induced lipid raft aggregation as an additional mechanism to enhance CD3 signaling. *J Immunol*, 170(2):913-21. 2003

Halamay KE, Kirkman RL, Sun L, Yamada A, Fragoso RC, Shimizu K, Mitchell RN, McKay DB. CD8 T cells are sufficient to mediate allorecognition and allograft rejection. *Cell Immunol*, 216(1-2): 6-14. 2002

Sen J, Kapeller R, Fragoso R, Sen R, Zon LI, Burakoff SJ. Intrathymic signals in thymocytes are mediated by p38 mitogen-activated protein kinase. *J Immunol*, 156(12): 4535-8. 1996

Chauhan D, Kharbanda S, Uchiyama H, Urashima M, Fragoso R, Sen J, Kufe DW, Anderson KC. Identification of upstream signals regulating interleukin-6 gene expression during in vitro treatment of human B cells with pokeweed mitogen. *Blood*, 84(7): 2243-52. 1994

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