Cancer is one of the leading causes of death in the world today, and shares the pedestal with heart disease as the leading non-communicable disease. While a cure for cancer remains elusive, state of the art care has greatly increased both the average length and quality of life of diagnosed cancer patients. Radiation therapy is a non-invasive technique which preferentially kills tumor cells while sparing healthy tissue, and modern conformal radiation dose delivery techniques have managed to increase the therapeutic window. As a leading supplier of radiation oncology equipment, Varian has played a major role in the field of radiation oncology. Varian has a long history of innovation in the field of microwave and radiation physics, and innovation is still at our core today.

As a scientist in the Ginzton Technology Center, I have the opportunity to push the boundaries play a role in the future path of Varian in the fight against cancer. I plan to cover a brief overview of the evolution of Varian and radiation oncology, as well as share some of the current research on going both at Varian and with our partners, and finally provide a glimpse into the future direction of cancer care.

About the Speaker: After graduating from high school in my hometown of Kalispell, MT, I went on to receive a B.A. in Physics and German from the University of Oregon. This combination of majors springboard me into a Fulbright scholarship for graduate studies in Stuttgart Germany where I completed a Master's degree from the Max Planck Institute (MPI) under Professor Bernhard Keimer. I then proceeded to pursue a Ph.D. at MIT under professor Young Lee, which I completed in 2007. The focus of my graduate research, both at MPI and MIT, was the use of particle scattering to characterize highly correlated electron systems, specifically low dimensional quantum magnetism in the context of high temperature superconductivity. After graduate school, I left academia and took my first position in Portland, Oregon as a development engineer at Cascade Microtech, a manufacturer of probe card equipment for on-wafer chip testing. In 2011 my family and I made the move to the Bay Area to pursue a job opportunity as senior research scientist at the Ginzton Technology Center of Varian Medical Systems in Palo Alto where I have been to this day.

4:00pm ~ November 9, 2015
3105 Etcheverry Hall

Upcoming Colloquia:

November 16, 2015
Mr. Kevin Barker
California Energy Commission

November 23, 2015
Dr. Sylvain V. Costes
Principal Investigator, Biosciences, LBNL
CSO, Exogen Biotechnology Inc.
"Evaluating the Impact of Ionizing Radiation with Modeling, Biomarkers and Live Cell Imaging”