The Department of Chemistry and Biochemistry

Seminar Series

Presents a Seminar Titled:

"Enabling Technology for Proton Radiotherapy"

Presented By

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(Jefferson Lab)

Proton therapy is a precise form of radiation treatment for cancer. Due to the characteristic Bragg peak associated with ion energy deposition, proton therapy provides the radiation oncologist with an improved method of treatment localization within a patient, as compared with conventional radiation therapy using X-rays or electrons. Controlling disease and minimizing side effects are the twin aims of radiation treatment. Proton beams enhance the opportunity for both by facilitating maximal dose to tumor and minimal dose to surrounding tissue. This can be accomplished only in concert with advances in tumor identification and localization, patient motion and positioning, treatment planning and evaluation, and a host of supporting technologies. In the United States, nine proton radiotherapy centers currently treat cancer patients, with a few more in the construction phase. Efforts to develop new facilities and enabling technologies abound. An overview of the treatment modality generally, as well as some of the capabilities and research planned for the field will be presented.

Thursday, October 11, 2012 at 12:20 in DRAGAS 1117