

## ONE WEEK HDR FELLOWSHIP EXPERIENCE At the Texas Cancer Clinic

### Sponsored by ABS and Nucletron

**General Description and Purpose:** A one week program for clinical and didactic training of residents in training and junior staff members in Radiation Oncology in the methodologies of High Dose Rate (HDR) brachytherapy. The purpose of this experience will be to expose young radiation oncologists to the depth and breadth of the uses of HDR brachytherapy to stimulate interest in further training and development of skills for implementation of this versatile modality into their clinical practice. This brief fellowship has been patterned similarly to the very popular permanent prostate seed implant fellowship program conducted in Seattle for the last several years.

**Eligibility:** Residents in training and young faculty, within two years of completion of training, are eligible to apply for this fellowship training.

**Sponsorship:** As industry sponsor of this program, Nucletron will provide \$1,500.00 for travel and living expenses associated with this program, to include airfare, hotel, meals, and ground transportation. In addition, a \$1,000 stipend is provided. No Federal funds are used for this program.

**Selection Process:** Eligible applicants are required to complete the brief online application on the ABS website, request a letter of recommendation from their program director, and write a brief essay describing their interest in HDR brachytherapy. Winners will be chosen by a selection committee comprised of members of the ABS board of directors, TCC faculty, and Nucletron representatives. Winners will be recognized at the annual ABS meeting with a plaque and in the ABS newsletter.

**Selection Criteria:** 10 individuals will be selected. Preference will be given to those individuals who demonstrate the greatest interest and motivation to learn and use HDR brachytherapy in clinical practice as well as potential to excel in the field as demonstrated by past performance, brief statement and program director letter. Those who are more senior in training or recent graduates will be given priority to junior residents. Preference will be not be given to individuals from any particular type of training program except for those who are not receiving significant HDR exposure as part of their residency experience. Those who have greater flexibility in scheduling will be given greater consideration, but must be available for dates he/she provides as their availability.

**Facility:** The setting chosen for this fellowship experience is the Texas Cancer Clinic, a free standing, privately owned, 30,000 square foot state of the art, multidisciplinary outpatient cancer treatment facility located in San Antonio, Texas that was primarily conceived and designed to perform and teach the most technologically advanced brachytherapy procedures in the world (TexasCancerClinic.com). It contains medical oncology, diagnostic radiology, radiation oncology as well as surgical oncology. Equipment includes two Varian 2100 linear accelerators, an acuity cone beam CT unit in a large, shielded and integrated brachytherapy suite, real-time US based prostate HDR capability, dedicated Ultrasound B&K Hawk unit, and teaching plasma screens. There is

a Nucletron HDR afterloader which is used in the brachytherapy suite as well as a dedicated HDR treatment vault as needed. The imaging department includes a Siemens PET/CT, dedicated SPECT camera, digital x-ray unit and Bone Densitometry scanner. Treatment planning capability includes ADAC Pinnacle and Plato from Nucletron with Oncentra Anatomy and image fusion software packages. HDR brachytherapy practiced at the TCC is very contemporary using the latest in 3D volumetric target acquisition, often involving image fusion derived from combinations of CT, MRI, U/S, and fluoroscopy, cone beam CT, PET, and Prostatecint. Internal dose monitoring with MOSFET and real time dose calculation for prostate using SWIFT 3.0 from Nucletron are also used. These capabilities and experienced staff have prompted Nucletron to sponsor a 1.5 day HDR training course at the TCC 6 times per year. Efforts will be made to schedule some of the fellowship training on the same weeks as the courses during the course of the year (schedules permitting). The TCC annually teaches courses to physicians, physicists, urologists, and other allied healthcare team members in Permanent seed implants (6), MammoSite brachytherapy (4), Image Fusion based treatment planning (2), as well as the general HDR course (6), and is well equipped with a conference room and advanced audiovisual capabilities to facilitate teaching. In 2008, more than 200 physicians from throughout the U.S., Europe, and Asia will have attended courses at the TCC.

**Staff:** Bradley Prestidge, MD is the medical director of the TCC, and is an internationally recognized expert in brachytherapy. Sylvia Zubyk, MD is experienced in both gynecological and breast HDR procedures as well as others. The TCC currently has the highest volume Accelerated Partial Breast Irradiation (APBI) balloon brachytherapy program of any single clinic in the country. Amir Sadeghi, PhD is the Chief of Physics and an active member of the ABS, currently training a number of PhD graduate students in Medical Physics, and very active academically. This core staff group is joined by other physicians, nurses, therapists, dosimetrists and physicists that are quite experienced with brachytherapy of all types.

**Rotation:** Each rotation will begin on a Monday morning and include one-on-one time with the clinicians and physicists, reviewing the schedule for the week and determining interests. At least one HDR procedure involving the prostate, breast and gynecological organs will be observed and assisted. HDR procedures for other sites such as skin, esophagus, lung, and AcuBoost for breast are also frequently performed. The fellow will be involved in the planning phase as well as learn how to critique a plan. The Thursday and Friday AM of the week (if scheduled on a course week) will involve a formal didactic and hands on training course sponsored by Nucletron. The fellow will then depart at the end of the day on Friday, or the weekend. Those selected will be expected to attend for the full length of the week. If not scheduled during a course week, the same material will be provided in individualized lectures and a syllabus.

**Application Deadline:** All application materials must be completed and submitted (reference letters postmarked) by midnight EST, January 15, 2010. Winners will be notified by January 31, 2010.

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