

ALBERT M. SABBAS, Ph.D., DABR

MEDICAL PHYSICIST
NEW YORK PRESBYTERIAN HOSPITAL
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EDUCATION

- 1977-1982 Ph.D., Experimental Nuclear Physics, Columbia University, NY, NY
Thesis Topic: "NMR measurements from Nuclear Emissions of Oriented Nuclei"
- 1973-1976 B.A., Physics and Mathematics, Drew University, Madison, NJ

EMPLOYMENT

- 1994-Present *Chief Physicist, Radiation Oncology, New York Presbyterian Hospital (Cornell), NY*
Provide leadership to the physics section. Assess technical needs of the department, write specifications and recommend specific systems. Perform acceptance testing on all new equipment and commission them for clinical use. Implement a comprehensive QA system to assure accurate delivery of radiation dose to patients. Acquire dosimetry measurements and model radiation beams for 3D dose planning on patients. Design and introduce new radiation procedures and treatment modalities (TBI, TSEB, LDR prostate implants, HDR brachytherapy, SRT, SRS, Body Radiosurgery, BAT localization, IMRT, EVBT). Responsible for radiation safety. Supervise a staff of 3 physicists, 2 dosimetrists and 1 engineer. Teach radiation physics to radiation oncology residents.
- 1990-1994 *Assistant Professor of Medical Physics, Radiation Oncology, Mt. Sinai Medical Center, NY*
Implemented the HDR brachytherapy program. Commissioned two linear accelerators and acquired dosimetry data for treatment planning. Developed verification methods to check computerized dose calculations. Participated in the physics QA program for external beam and brachytherapy. Taught radiation oncology residents.
- 1987-1990 *Medical Physicist, Radiation Oncology, Long Island Jewish Medical Center, NY*
Developed a stereotactic brachytherapy brain implant program. Commissioned a new simulator unit. Performed tests and measurements on two remote afterloader units. Introduced procedures for calibration of brachytherapy source. Participated in the physics QA program.
- 1984-1985 *Principal Research Scientist, Siemens Gammasonics, Des Plaines, IL*
Investigated the use of gamma cameras for bone mineral absorptiometry measurements. Performed simulations studies of the camera's detection process for evaluating and improving its spatial resolution. Evaluated the use of multiple gamma cameras for PET.

POST-DOCTORAL WORK

- Assistant Professor, Department of Medical Physics, Rush Medical College, Chicago, IL, (1985-1987)*
NCI-funded Research Fellowship. Conducted research in the application of the electron multiple scattering theory (Fermi-Eyges) in radiation dosimetry. Organized and conducted weekly research meetings in electron beam dosimetry. Taught radiological physics to medical physics students and residents. Trained in the field of clinical medical physics (diagnostic and therapy).
- Research Associate, Nuclear Physics Group, Los Alamos National Laboratory, Los Alamos NM, (1983-1984)*
Conducted resonance fluorescence studies in radioactive nuclei and resonance ionization spectroscopy for the separation of nuclear isomers using high-resolution tunable lasers.

CERTIFICATION

American Board Radiology, Therapeutic Radiological Physics (1991).

MEMBERSHIPS

American Society of Therapeutic Radiological Oncologists (ASTRO)

American Association of Physicists in Medicine (AAPM)

Radiological and Medical Physics Society of New York (RAMPS)

Board Member : 1995-1997.

American College of Radiology (ACR)

INVITED TALKS

“Technical aspects of Radiosurgery- Present and Future” Grand Rounds Presentation, Department of Radiation Oncology, New York Presbyterian/Cornell, 1/2002.

“Linac-based Stereotactic Radiosurgery using the Radionics system”, Invited talk at Horton Medical Center, Departments of Radiation Oncology and Neurosurgery, 12/2001.

“Physics and Dosimetry of Intravascular Brachytherapy”, Panel Discussion 18 on “Coronary Artery Radiation Therapy”, ASTRO annual meeting, 2001.

“Novel Approach to treating Malignancies Involving the Skin: Details of Treatment and Treatment Planning”, New York Roentgen Society, Section of Radiation Oncology, 12/1999.

“Stereotactic Radiosurgery”, St. Savvas Cancer Center, Athens, Greece, 4/1995.

“Mathematical Applications in Medicine and Biology”, Series of lectures presented in the Fall of 1986 at Rush Medical College.

Moderator in Session II (Physics) of the “4th Annual Conference on Vascular Radiation Therapy”, Weill Medical College of Cornell, 6/1999.

Moderator in the “3rd Annual Conference on Interventional Endovascular Brachytherapy”, New York, 5/1998.

Moderator in the “International Seminar on the Current Status of Radiotherapy in the World: Brachytherapy in the Next Millennium”, New York, 4/1997.

OTHER SCHOLARLY ACTIVITIES

Co-editor of the Radiation Therapy section of the RAPHEX exam under the coordination of RAMPS (1995-1996).

Review over 10 articles submitted for publication to Medical Physics in the area of “Brachytherapy Physics QA” .