

Steven Leibel MD was an inspiring leader in radiation oncology who died prematurely, and this symposium honors his memory and his collegial relationships with medical physicists at Memorial-Sloan Kettering Cancer Center, Stanford University, UCSF and the American Board of Radiology. Dr. Leibel was a major innovative force in development and application of Intensity-Modulated Radiation Therapy (IMRT), and his vision and energy were instrumental in national and international adoption of this practice-changing technology in radiation therapy. In this memorial symposium, three distinguished medical physicists will examine the current state of IMRT and provide their vision for its future, including considerations of biologically-adaptive IMRT, tumor modeling integrated into IMRT, and advanced technical IMRT features.

Specific issues to be addressed include:

1. Advanced IMRT planning, including a review of novel optimization techniques and delivery strategies.
2. Commissioning, routine quality assurance and safety considerations for clinical use of advanced IMRT planning and delivery techniques.
3. Future directions in advanced IMRT planning and delivery, including the incorporation of biological considerations, tumor modeling and normal tissue response in optimization.