Purpose: In the last 2 to 3 decades, rapid changes have occurred in the fields of radiology oncology prompting a need to rethink training required for medical physicists. It is clear that traditional approaches of obtaining an academic M.S. or Ph.D. degree, coupled with minimal on-the-job training, have not produced an acceptable success rate for credentialing by the American Board or Radiology (ABR). As a result, the ABR has taken steps to define required training criteria prior to examination in an attempt to resolve this matter.

Methods: In 2006, initial steps began at Texas Tech University to design a new doctoral degree to prepare students to successfully enter and compete in the field of medical physics. This 5-year degree, the Doctor of Medical Physics, is a clinical degree patterned after the MD degree. This is a new degree program that is complimentary to and not competitive with traditional M.S. and Ph.D. degrees designed to prepare students for academic careers. The Doctor of Medical Physics is appropriate for those physicists who wish to focus their careers in clinical medical physics in an interactive role with their physician colleagues. The first year is indeed the first year of medical school, with the second and third years focused on an interdisciplinary didactic program including physics, biology, mathematics, and related topics. Years 4 and 5 include a structured residency program with graduation contingent on successful completion of the written ABR Examinations. The opportunity exists for a final fellowship year as the student prepares for the oral boards.

Results: In 2010, this degree was approved by the Southern Association of Colleges and Schools, Commission on Colleges (SACS-COC) and by Texas Higher Education Coordinating Board

Conclusions: Other schools in Texas are in various stages of implementing similar degree programs.