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Postdoctoral Opportunities in Medical Physics

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The medical physicist is a professional who specializes in the application of the concepts and methods of physics to the diagnosis and treatment of human disease. Medical physicists identify their primary discipline to be radiation therapy (78%), medical imaging (16%), nuclear medicine (3%), or radiation safety (2%). They state their primary responsibility to be clinical (78%), academic (9%), research (4%), etc. Correspondingly, medical physicists reveal their primary employment to be a private hospital (42%), university hospital (32%), physicist's service group (9%), physician's service group (9%), industry (5%), and government (3%). The most frequent job of medical physicists is clinical radiation therapy physicist, whose clinical duties include: equipment acquisition, facility design, commissioning, machine maintenance, calibration and quality assurance, patient treatment planning, patient dose calculation, management of patient procedures, development of new technology, radiation safety, and regulatory compliance. The number of medical physicists in the United States can be estimated by the number of members of the American Association of Physicists in Medicine (AAPM), which has increased $\approx 5.5\%$ annually since 1969, currently being $\approx 5,000$. New positions plus retirements create a current need >300 new medical physicists per year, which exceeds supply. This is supported by the steady growth in average salaries, being $\approx \$100,000$ for PhDs entering the field and reaching $\approx \$180,000$. Graduate programs alone cannot meet demand, and physicists entering the field through postdoctoral training in medical physics remain important. Details of postdoctoral research programs and medical physics residency programs will provide direction to physics PhD graduates interested in medical physics. [The AAPM, its annual Professional Information Report, and its Public Education Committee are acknowledged for information contributing to this presentation.]