mere analogizing, is the casting of discussions in terms of measurables and mathematics, so that statements can be tested by laboratory or computer experiments. The "criticality" of the nervous system discussed by Christopher J. A. Game in his referenced publications is not described in such terms.

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Medical Physics Jobs: What's the Prognosis?

Medical physics can be one of the most challenging and rewarding applications of physics in society today (as evidenced, for example, by Arthur Robinson's Career Choices column in PHYSICS TODAY, September 1993, page 47). The American Association of Physicists in Medicine, the largest professional organization of medical physicists, has over 3500 members worldwide. The majority of AAPM members practice in the United States. Unlike what we are seeing in other physics fields, there is still a shortage of medical physicists in North America, and this should remain the case at least into the near future. Below is an analysis of current employment prospects to provide useful information for anyone contemplating a medical physics career.

The medical physics profession is split into six major subspecialties: radiation therapy physics, diagnostic imaging physics, magnetic resonance imaging physics, radiation safety and health physics, nuclear medicine physics, and other applications of physics in medicine, for example, hyperthermia and photodynamic therapy. A career in any one of these specialties can be very fulfilling and will most likely offer a relatively high salary at this time. I myself have recently finished my PhD in medical physics at the University of Wisconsin and currently enjoy work in a hospital-based radiation therapy clinic as a clinical physicist.

Ideally one's own interest would be the most important driving force in choosing a specialty; however, more mundane factors should also be considered, such as the probability of finding a job quickly after finishing one's studies. This probability varies with specialty. The report of the most recent AAPM professional information survey[1] (data for 1993) shows that 68% of respondents claimed radiation therapy to be their primary involvement, 13% claimed diagnostic imaging, 4% magnetic resonance imaging, 7% radiation safety and 4% nuclear medicine; 4% were employed in other categories. (Approximately three-quarters of the 2500 eligible medical physicists responded to the survey. The remaining 1000 members of the AAPM were either student, emeritus or charter members and were not included.) This survey alone may not give an accurate indication of hiring trends. If, for example, all available positions in a specialty were already filled, a high employment proportion in that specialty would incorrectly imply many employment opportunities. Similarly, a low employment proportion in any one specialty could be the result of there being either many vacancies or not many positions to begin with. To gain a better understanding of medical physics employment opportunities, it is therefore useful to analyze hiring trends over the past several years.

The AAPM operates a placement service for its members and every month publishes and distributes the "blue book," which lists vacant medical physics positions worldwide. Over the past three years[2] a total of 979 jobs were advertised. Most jobs were listed only once, with a high proportion being newly created positions. It is encouraging to see the high number of vacant positions posted monthly, although the average number of posts per month has decreased from a high of 34 in 1992 to only 20 in 1994, suggesting that the medical physics field is slowly saturating. Not surprisingly, radiation therapy physics represented the largest fraction, with well over half of all posted jobs in the past three years being in this specialty. Approximately 12% of all jobs were in diagnostic imaging, while the remaining groups each made up less than 10% of the total. The similarity of these figures to the employment breakdown described above suggests that the need for physicists in each subgroup remains constant.

References

1. *Professional Information Survey Report,* Am. Assoc. of Physicists in Medicine, New York (1993).
2. *AAPM Placement Service Bulletin,* Am. Assoc. of Physicists in Medicine, New York (January 1992 to December 1994).

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The Persian Pursuit of Physics

I recently went to Iran to attend the meeting of the Physical Society of Iran, which took place at the University of Kurdistan, in Kurdistan province, from 25 to 29 August. This annual conference, held in a different