

Anniversary Paper: Activities of the American Association of Physicists in Medicine 1999–2008

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INTRODUCTION

This paper is written to commemorate the 50th Anniversary of the American Association of Physicists in Medicine. It chronicles the activities of the AAPM from 1999 to 2008. It is meant to supplement the “History of the American Association of Physicists in Medicine 1958–1998” written by John Laughlin and Paul Goodwin.¹

PERIOD 5 (1999–2008)

1999.....Geoffrey Ibbott
2000.....Kenneth Hogstrom
2001.....Charles Coffey
2002.....Robert Gould
2003.....Martin Weinhaus
2004.....G. Donald Frey
2005.....Howard Amols
2006.....E. Russell Ritenour
2007.....Mary Martel
2008.....Gerald White

Geoffrey Ibbott

Geoffrey S. Ibbott was the 40th AAPM president and served during the year 1999. He was president elect in 1998 and served as chairman of the board in 2000. Geoff had previously served as chair of the professional council from 1993 to 1997 and was a member of the board of directors from 1995 to 1997.

Geoff effectively began his career in medical physics immediately after graduating from high school. After showing little interest in chemistry, his father’s field, Geoff took his first physics course and found it held great appeal for him. His father was tremendously relieved and arranged with William R. Hendee, Ph.D., newly arrived at the University of Colorado Health Sciences Center, for Geoff to work a summer job. After a year at college, Geoff returned to Denver and worked a second summer with Dr. Hendee. This temporary position turned into a permanent position and Geoff continued to work in the department while gradually pursuing his bachelor’s degree in physics (Fig. 1).

From 1987 to 1993, Geoff worked on his Ph.D. at Colorado State University. His doctoral thesis was “Radiation Effects in the Mirroring Taste Bud.” Geoff’s Ph.D. advisor was Dr. Edward Gillette and he worked with several other famous radiobiologists including Mortimer Elkind and Joel Bedford.

While at the University of Colorado Health Sciences Center, in addition to working closely with Dr. Hendee, Geoff worked alongside several other AAPM presidents including Paul Carson, Russ Ritenour, and past journal editor Ed Chaney.

After receiving his master’s degree, Geoff was appointed as instructor in the Department of Radiology and began playing a more significant role in the Medical Physics Graduate training program. Among the graduates of that program are many senior and well-known medical physicists.

In 1990, Geoff left the University of Colorado for a position at the Yale-New Haven Hospital, working as a medical physicist under the Robert Schulz, Ph.D., and later, Ravi Nath, Ph.D. While at Yale, Geoff worked with Dr. Schulz and a postdoctoral fellow named Marek Maryanski, who together were early pioneers in the new field of gel dosimetry.

In 1994, Geoff was recruited to a position as assistant professor and Director of Radiological Physics at the University of Kentucky Medical Center in Lexington. While at Kentucky, Geoff was again heavily involved in training medical physicists through the masters program at Kentucky. Here he worked alongside such well-known physicists as Guy Simmons, Joe Sayeg, and Ralph Christensen. While at Kentucky, Geoff was promoted to associate professor with tenure.

At the beginning of 2001, Geoff moved to M.D. Anderson Cancer Center in Houston, Texas, to take a position as Associate Professor and Chief of the Section of Outreach Physics, within the Department of Radiation Physics. At MDACC Geoff’s primary role was to take over the leadership of the Radiological Physics Center, a position held for the previous 16 years by William Hanson, Ph.D. and for the 16 years prior to that by Robert Shalek, Ph.D.

As AAPM president Geoff continued some of the professional activities he conducted while chair of the AAPM professional council. Chief among these were his participation in the trilateral committee, to maximize the lobbying effectiveness of medical physicists through the AAPM, the American College of Radiology (ACR), and the ACMP. Geoff worked hard to establish medical physicists as important contributors to the new field of intravascular brachytherapy. This required clear and open communications with the American College of Cardiology, the American Society for Therapeutic Radiology and Oncology (ASTRO), the Radiological Society of North America, and the ACR. Fortunately, the leadership of ASTRO and ACR was supportive

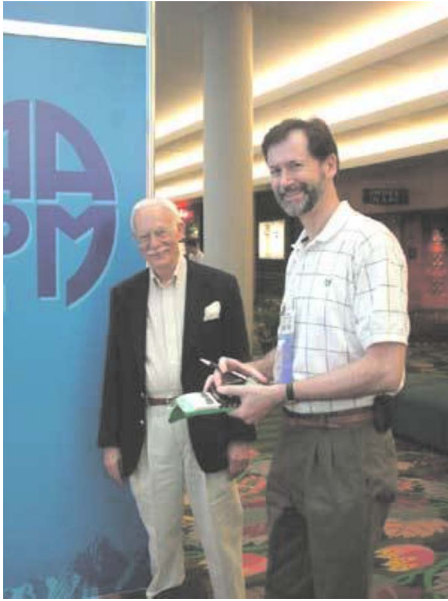


FIG. 1. Bob Gorson and Geoff Ibbott.

and understood the difficult position medical physicists were placed in: wishing to ensure the safe treatment of patients who would benefit from a novel treatment, yet wishing to maintain good relations with radiologists and radiation oncologists.

During 1999, Geoff's year as president, a number of significant events took place that affected the AAPM and the careers of medical physicists. In particular was the annual meeting. As is the case with all annual meetings, the 1999 meeting set a new attendance record. The meeting was held at the Opryland Hotel in Nashville and holds the distinction of being perhaps the only AAPM meeting to be held in a biosphere-like environment. As part of the meeting, the president's symposium was held on the topic of intravascular brachytherapy and introduced much of the membership to this new field.

Headquarters relocation

The AAPM's lease at the American Center for Physics was due to expire in 2001. The AAPM had to make the decision whether to move to another location in Washington, D.C., or to another city entirely, or to stay and renew the lease at the ACP. We decided to stay, of course, and this has arguably worked out very well for us. Sal Trofi was in the midst of his successful tenure as Executive Director during this time, and our headquarters staff was fully engaged in expanding its role in managing the activities of the association (Fig. 2).

Calibration protocol

The AAPM's TG-51 calibration protocol was published in 1999. This protocol replaced the previous TG-21 protocol and has been adopted, albeit gradually, by the majority of radiation therapy departments in the U.S.

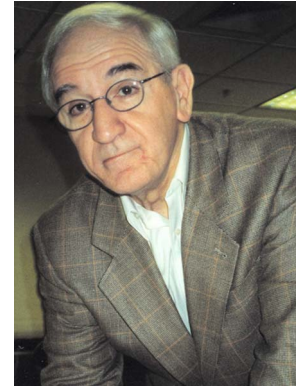


FIG. 2. Sal Trofi.

RSNA/Disney exhibit

During 1999, AAPM endorsed and collaborated with the development of an exhibit entitled "Radiology-Exploring New Horizons" to be displayed by the Disney Corporation at their Epcot Center. The exhibit opened during 1999 and was on display until 2003.

Medicare

During 1999 and previous years, the AAPM had numerous discussions with the ACR, ASTRO, and the Medicare Agency over the proposal for a hospital outpatient prospective payment system (HOPPS). Geoff and the Professional Council Chair, Michael Gillin, left the annual meeting for a day to travel to Baltimore to meet with Medicare to discuss our concerns. We also corresponded with the developer of the system of Ambulatory Patient Groups (APGs) and Ambulatory Patient Classifications (APCs), who came to appreciate the role of the medical physicist, and with our urging, made recommendations to Medicare that ultimately benefited medical physicists. During that year, the AAPM commented numerous times on a variety of legislative initiatives, including a bill that would have exempted radiation therapy from the HOPPS proposal. The AAPM revisited, and again rejected, a misguided proposal from a small group of physicists, to argue before Medicare and Congress for provider status.

Radiology alliance

During 1999, the AAPM joined with the ASRT and other organizations as an active member of the Alliance for Quality Medical Imaging and Therapy. The goal of the alliance was to introduce legislation modifying the Consumer Patient Radiation Health and Safety Act of 1981, to strengthen the requirement for licensure of radiological technologists. This was in fact the precursor of the CARE bill that is still being discussed today.

Kenneth Hogstrom

Kenneth Hogstrom was the 41st AAPM president, serving in 2000. Ken was born in Houston, TX, and he received his B.S. and M.S. in physics from the University of Houston in



FIG. 3. Ken Hogstrom.

1970 and 1972, respectively. He received his Ph.D. in physics from Rice University in 1976. At the time of his presidency, he was Professor and Chair of the Department of Radiation Physics at The University of Texas M.D. Anderson Cancer Center, holding the P.H. and Fay Etta Robinson Distinguished Professorship in Cancer Research and serving as Director of Medical Physics Programs at The University of Texas Graduate School of Biomedical Sciences at Houston.

Presently, he is Professor and Director of Medical Physics and Health Physics Programs in the Department of Physics and Astronomy at Louisiana State University, holding the Dr. Charles M. Smith Chair of Medical Physics, and is Chief of Physics at Mary Bird Perkins Cancer Center in Baton Rouge (Fig. 3).

Ken has mentored numerous graduate students and post-doctoral fellows and has published over 100 articles in peer-reviewed scientific journals. His research has successfully applied radiation transport to development of methods and techniques of dose measurement, dose calculation, treatment planning, treatment delivery, and quality assurance in radiation therapy. He has twice been the recipient of the Farrington–Daniels Award. He has taught numerous continuing education courses and has written over 40 books, chapters, and reports. He is a Fellow of the AAPM and ACMP and received the AAPM Coolidge Award in 2003 and the ACMP Marvin M. D. Williams Award in 2004.

Ken has chaired and served on numerous AAPM committees and the Board of Directors. While serving on the ABMP Board of Directors, Dr. Hogstrom helped craft a plan that resulted in the ABR-ABMP Working Agreement,² which resolved a divisive issue among medical physicists. He chaired the first CAMPEP Residency Education Program Review Committee that developed guidelines for accreditation of medical physics residency programs and accredited the first programs.

Strategic planning

Before Ken's presidency, members of EXCOM and the Council chairs had held a long range planning meeting each spring at AAPM headquarters. On April 29–30, 2000, the meeting was expanded into a strategic planning session, which was attended by 24 members representing EXCOM,

councils, committees, and subcommittees. The resulting report³ produced 33 important recommendations that guided many AAPM activities over the next few years. For example, 1 of the 33 recommendations, introduced by Bhudatt Paliwal, led to the Summer Undergraduate Fellowship Program. Another initiative was to develop an orientation at AAPM headquarters for incoming elected officers and committee chairs [AAPM Newsletter Volume 25(6):4].⁴

Governmental affairs

The AAPM continued to support legislation to establish the National Institute of Biomedical Imaging and Engineering (NIBIB).^{5,6} With guidance from AAPM representative to the Academy for Radiology Research (ARR), Phil Judy, Ken sent AAPM letters of support to Senators Frist and Kennedy. The bill (H.R. 1795) to establish NIBIB passed both houses late in 2000, and President Bill Clinton signed the bill into law on December 29, 2000.⁷

Ken and ACMP Chairman Jim Smathers represented medical physics at the RSNA meeting of the Alliance for Quality Medical Imaging and Radiation Therapy, which opened the pathway for later leadership to include medical physicists in the C.A.R.E. bill.⁸

Training of medical physicists

The need for accurate data regarding the supply and demand for medical physicists had become apparent, largely due to decreased demand of the mid-1990s caused by the threat of managed care, and increased demand in 2000 in part due to onset of the clinical utilization of intensity modulated radiation therapy. The Medical Physicist Workforce Subcommittee, established in 2000 under the Education Council and later moved to the Professional Council, was charged with gathering information and developing models of supply and demand.

The American Institute of Physics had data showing a steady decrease of physics bachelor's production from 5000 in 1990 to 4000 in 2000.⁹ The AAPM, in response to its strategic planning, addressed this problem by establishing the Summer Undergraduate Fellowship Program, which has grown from initially 6 fellows to 14 summer fellows in 2008. Also, the Public Education Committee began development of a slide set that members could use to make presentations on medical physics to the Society of Physics Students at university physics departments.

While president, Ken made efforts to stimulate the growth of medical physics residency programs.¹⁰ Since this would be a long and arduous process, the Medical Physics Residency Training and Promotion Subcommittee was established under the Education and Training of Medical Physicists Committee.

Allied health professional colleagues

The AAPM continued to work to assist its allied health professional colleagues. An ad hoc committee entitled "Formation of Professional Society for Radiotherapy Accelerator Maintenance Personnel" was appointed, and it held its first

organizational meeting of 50 interested accelerator engineers and technicians on July 22–23, 2000 in conjunction with the 2000 World Congress on Medical Physics and Biomedical Engineering and 42nd Annual Meeting of the AAPM in Chicago. This initiative resulted in the formation of the Radiotherapy Service Engineers Association (RSEA), which meets annually in conjunction with the AAPM annual meeting.

The AAPM made efforts to assist the American Association of Medical Dosimetrists in increasing the capacity for medical dosimetry training programs. Funding from AAPM and ASTRO seeded efforts for Art Boyer to conduct a workshop and subsequently obtain a grant to develop a web-based medical dosimetry training tool at Stanford University.¹¹

Journal of applied clinical medical physics

The AAPM Board of Directors approved a request to purchase from the American College of Medical Physics (ACMP) for each AAPM member a CD containing a cumulative copy of all Journal of Applied Clinical Medical Physics (JACMP) issues through 2001. This action provided important financial assistance to the Journal of Applied Clinical Medical Physics (JACMP) and strengthened the AAPM's recognition of the JACMP as an important complement to the AAPM Medical Physics journal.

Charles Coffey

Charles W. Coffey II served the AAPM as its 42nd president. Charlie received his B.S. degree in physics and M.S. degree in medical physics from the University of Kentucky. He received his Ph.D. degree in bionucleonics from Purdue University in 1975. After a tenure as chief medical physicist at the University of Kentucky in Lexington, Kentucky, Charlie accepted the position of chief medical physicist at the Vanderbilt University Medical Center in 1993. In addition to an emphasis on clinical therapy service, Charlie has pursued a career as educator and mentor. Both at the University of Kentucky and Vanderbilt, Charlie has been instrumental in making clinical physics training a significant component of the M.S. medical physicist's education. Recently, the Medical Physics faculty at Vanderbilt approved plans to create a Professional Doctorate in Medical Physics (DMP); final administrative approval is expected in the Fall of 2008. His research has focused on quality assurance methods and applications in clinical radiotherapy physics (Fig. 4).

Highlights during the presidential year

The ABR/ABMP Working Agreement was announced at the 2001 AAPM Summer Board Meeting. This agreement was the culmination of many months of negotiations between physics representatives of the two certification boards. The resulting Working Agreement effectively ended the competition between the two certification boards and afforded the medical physics community an opportunity to obtain professional certification in the traditional fields of medical physics by the ABR and certification in nontraditional fields and subspecialties of medical physics by the ABMP. This agreement



FIG. 4. Charlie Coffey and Bob Gould.

represented a significant unifying event within the medical physics community; the Board of Directors rose to a standing ovation that day in honor of the two certification boards for this long awaited achievement.

The AAPM Summer Research Fellow Program began in 2001 with the awarding of six fellowships to undergraduate students interested in pursuing medical physic careers. The Fellowship Program was the beginning of a successful effort within the AAPM to educate and mentor physics undergraduate students. While AAPM leadership collaborated with APS, AAPT, and SPS leadership at the organizational level, AAPM members were encouraged to serve as mentors to undergraduate and graduate students interested in medical physics careers.

The Board of Directors and the AAPM Headquarters administration and staff were instrumental in planning and implementing the AAPM Virtual Library and web-based learning site. Proffered oral presentations, refresher courses, and continuing education presentations from the AAPM Summer Meeting and the RSNA Winter Meeting were made available for electronic review. Additionally, a mechanism was established under the direction of the Education Council whereby CME credits were made available to the AAPM membership for review of selected online educational materials.

Robert Gould

Robert Gould was the 43rd president of the AAPM, serving in 2002. Bob attended the College of Wooster in Wooster Ohio, receiving his B.A. in Chemistry. He then went to the University of Pennsylvania to study medical physics, a program within the Electrical Engineering Department, under the direction of John Hale. He received his M.S. from Penn, writing his Master's thesis on the use of an air gap to reduce scatter in chest imaging. Bob then studied medical physics at Harvard University under Bengt Bjarngard and Ted Webster, and received a Doctor of Science degree in 1978. (Bob may be the only AAPM president to have trained under three past presidents.) While at Harvard, he worked part time as the only medical physicist employed in the Department of Radiology at the Beth Israel Hospital in Boston. He remained at Beth Israel after graduation only briefly, moving to join the Department of Radiology at the University of California San

Francisco in 1978 where he remains today. Bob is currently a Professor of Radiology and Bioengineering and the Director of Clinical PACS. He was recently appointed a Vice-Chair of the Department. From 1984 to 1990, Bob worked part-time at Imatron, Inc., a company with origins at UCSF that produced a novel CT scanner that used a scanning electron beam as the x-ray source. His research activity and publications have been in diagnostic x-ray imaging.

Prior to serving as AAPM President, Bob was Chair of the AAPM Scientific Program Committee. During his tenure as head of this committee, the structure and organization of the Annual Meeting were significantly changed. Most recently, he chaired the search committee for Editor of Medical Physics, which culminated in the appointment of the current editor, Bill Hendee. Bob has also been active in the RSNA serving on several scientific and educational subcommittees.

Presidential year activities

Overall membership in the AAPM surpassed 5000 and the programmatic budget hit \$5 000 000. As part of the growth of the Society, headquarters staff was increased by 3 FTEs to nearly 20. The Long Range Planning meeting started the prior year by Charlie Coffey was continued with the emphasis on making changes to allow the Board to become more involved in strategic planning. As part of this effort, committees and subcommittees were asked to specify goals and timelines and match funding requests to these goals. Another priority was to examine the Annual Meeting to assure that it continued as a pre-eminent meeting for members to present scientific findings and to obtain accredited continuing education. The attendance at the Annual Meeting had fallen in 2001 compared with the previous year and the number of abstracts submitted by imaging scientists was half that submitted 5 years previously. Furthermore, the 2002 Annual Meeting, which was held in Montreal, was the first post 9/11 meeting, adding to concern about attendance. This examination of the Annual Meeting, which included the formation of an Ad Hoc Committee by Charlie Coffey at the end of his presidency, of which Bob was a member, and continued for several years, eventually resulted in both a revision of the Science Council with the formation of the Therapy and Imaging Physics divisions, and in a change in the committee structure responsible for the Annual Meeting. Another area of concern was the demographic profile of the AAPM, which, while age is self-reported within the AAPM database, indicated that the average age was increasing and that proportionately fewer young physicists were entering compared with those retiring. Less than 19% of the memberships was Student or Junior members yet demand for medical physicists was clearly growing. Ways to encourage young people to enter medical physics, including inviting local physics teachers to the Annual Meeting, were much discussed.

2002 was the year Sal Trofi, the Executive Director of the AAPM, formally announced his retirement plans, which occurred at the beginning of 2004. Sal presented to Excom, a reorganization plan for Headquarters primarily changing financial management responsibilities, and recommended that



FIG. 5. Howard Amols, Marty Weinhaus, Steve Rudin, and Don Frey.

Angela Keyser, then Associate Director, as his replacement. Excom approved this plan and brought it to the Board of Directors at the Annual Meeting, accelerating the timeline suggested by Sal. The Board approved the plan and approved Angela to become the next Executive Director (Fig. 8).

Martin Weinhaus

Martin S. Weinhaus served as AAPM's president in 2003 and on the Executive Committee in the preceding and following years.

Marty was born in Brooklyn, NY and earned his B.S. in physics at Rensselaer Polytechnic Institute in 1966. He earned both his M.S. and Ph.D. in physics at the University of New Hampshire in 1970 and 1974, respectively. His NASA-funded Ph.D. thesis in experimental atomic physics was entitled "Polarization of the Light from the 3^1P-2^1S Transition in Proton Beam Excited Helium." In the fall of 1973 Marty joined the physics faculty at North Adams State College in Massachusetts. He subsequently served on the physics faculties of Norwich University, the University of New Hampshire, and Keene State University before deciding to change careers and enter medical physics (Fig. 5).

In 1979 Marty accepted a 1-year postdoctoral traineeship under Bob Schulz in the Department of Therapeutic Radiology at Yale University. He stayed on at Yale working with Bob and with Ravi Nath as an Associate Research Scientist for an additional 5 years. In 1985 Howard Amols recruited Marty to Rhode Island Hospital and Brown University where he gained valuable clinical experience and had the opportunity to teach physics aspects of radiation medicine at Brown. When Howard moved on, Marty became the Chief Physicist at Rhode Island Hospital.

In 1987, Jim Purdy recruited Marty to the Mallinckrodt Institute of Radiology where he served for 3-1/2 years, working on 3D treatment planning development and becoming a member of various AAPM task groups and committees. In 1990 Marty was recruited to Hahnemann University by Larry Simpson. While at Hahnemann he became more active in the AAPM, including his first service on the Board of Directors from 1992 to 1994. Marty was also very active in Hahnemann's graduate program in the radiological sciences which produced medical physicists and radiation biologists as well as in resident education.

In 1994, Marty accepted the position of Head, Section of Medical Physics Department of Radiation Oncology at the Cleveland Clinic. In 1998, he became the Penn-Ohio Chapter representative on the AAPM Board for another 3 years. Marty also served as a member of the Board of Chancellors of the ACMP, 2001–2002. Through the AAPM, he became active in the AIP serving as a member of the Advisory Board for the journal *Computers in Physics* and then as Chairman, Advisory Committee for the journal *Computing in Science and Engineering*. Also through AAPM, he became active as an examiner for the ABR and the ABMP. In the AAPM, Marty joined ExCom in 2002, served as president in 2003 and as Chairman of the Board in 2004.

During his presidency he became very involved in the exposure-limit debate and in opposing the NCRP's seeming intent to reduce the recommended exposure limit for the general public by a factor of 4. Also during his tenure in the AAPM's leadership, Marty worked to modernize and reorganize the AAPM beginning with the streamlining and pruning of its committee tree. Seeking to do more, Marty requested and Bob Gould appointed him as Chair of a Presidential Ad Hoc Committee on Organization and Governance (2002–2005). That committee brought a reorganization plan to the Board which approved the plan conceptually and then formed its own committee, the Ad Hoc Committee on Regional Reorganization, 2005, again Chaired by Marty. That new committee's proposal was approved by the Board and brought to the membership for a vote (with 2/3rds needed to pass). The Board's reorganization plan failed to reach the 2/3rds threshold by a percent or so. A subsequent reorganization effort by the Regional Organizations Committee has stalled. Marty remains convinced that a reorganization remains necessary and looks forward to supporting such efforts in the future.

Donald Frey

G. Donald Frey served as the 45th President of AAPM in 2004. Don was born in Buffalo, NY. He attended Canisius College and received his B.S. degree in physics in 1965. He then attended the University of South Carolina where he received his Ph.D. in 1970. His research was in low energy nuclear spectroscopy. Fellow graduate students included Jon Trueblood and Bob Dixon. Following brief service as an officer in the US Army Ordnance Corp he joined the Medical University of South Carolina. He has been on the faculty there for 37 years. He is currently Professor of Radiology.

With regard to AAPM issues during Don's presidency, one of the major undertakings was the reorganization of committees and councils. A new structure for the Science Council was put into place. A number of committees were terminated because they no longer served a purpose or they had a major overlap in function with other committees. Several committees were moved from one council to another. Under the direction of the Rules Committee, chaired by Chris Marshall, the committee and council rules were revised. These revisions followed a standard template which made the rules easier to understand.

Board reorganization

The size of the AAPM Board of Directors had been subject to much debate over the years. After several years of study this matter was addressed by the Board beginning in 2004 when the Board voted to send a restructuring plan to the membership. The details of the plan were completed at a special meeting in March of 2005. The plan was sent to the membership following the Annual Meeting in 2005. The reorganization was rejected by the membership in a close vote. However, the discussions led to significant changes in the way the board operated.

Colin Orton had announced that he was retiring as editor of *Medical Physics* after a highly successful term of service. After a major search by the Association, Bill Hendee was selected as editor.

Howard Amols

Howard Amols served as the 46th president of the AAPM in 2005. He majored in physics at The Cooper Union in New York City, earning his B.S. Summa Cum Laude in 1970. He received an NDEA Title IV Fellowship to attend Brown University where he received his Ph.D. in physics in 1974, with a dissertation on neutron dosimetry and microdosimetry. From Brown he went to Los Alamos National Laboratory as a National Cancer Institute Postdoctoral Fellow to work on the newly opened Pion Radiotherapy Project. Although the clinical results of pion therapy were disappointing, from this and other particle therapy programs the seeds were sown for many innovative radiotherapy techniques such as CT-based 3D treatment planning, intensity modulation, and extracranial body radiosurgery, none of which were commonly used in conventional radiotherapy at the time. He remained at Los Alamos until 1981, but spent most of his last two years at the University of New Mexico Cancer Center in Albuquerque doing what would now be called a Medical Physics Residency, but which back then was just called on-the-job training. In 1981, he returned to Brown University in Providence, RI as Assistant Professor of Radiation Medicine, and later Associate Professor. In 1986, he returned to his hometown of New York City to become Chief of Radiation Therapy Physics at Columbia University, eventually becoming Full Professor. In 1998, he moved across town to become Chief of the Clinical Physics Service at Memorial Sloan Kettering Cancer Center. His research and publications have focused on a wide variety of topics in addition to heavy particle radiotherapy including microdosimetry, radiation biology, radiosurgery, brachytherapy, intravascular brachytherapy, and more recently IMRT and IGRT.

Prior to his AAPM presidency he was involved in many extracurricular professional activities including the AAPM Awards and Honors Committee, Task Group 60 (Intravascular Brachytherapy), Radiation Therapy Committee, Editorial Board of *Medical Physics*, and AAPM Board Member. He has been a long time member of the RAMPS RAPHEX Exam Committee and served over 10 years on multiple examination committees of the ABMP.

President Amols tried to focus AAPM attention on several key areas: AAPM organizational structure and efficiency, particularly the efficiency of the Board of Directors; making the AAPM more responsive to members needs; clinical training of medical physicists, increasing the visibility of the AAPM website, and increasing the use of electronic communication for AAPM business. In 2004, as President Elect he commissioned the first survey of AAPM members soliciting their opinions on topics such as AAPM publications, meetings, professional issues, website, elections, Board of Directors, and interactions between local Chapters and the AAPM.

Following the path initiated by predecessors Marty Weinhaus and Don Fry, significant progress was made towards improving the efficiency of the AAPM Board of Directors and streamlining many AAPM functions. The member survey highlighted widespread belief amongst members that the efficiency of the Board of Directors needed to be improved, and more importantly that the Board spent too much time rubber stamping committee actions and not enough time defining or debating AAPM goals and priorities. Several very positive actions were initiated that changed the function and operation of the Board if not its structure. In particular, it was agreed that the Board should meet 3 times per year instead of 2, with the third meeting being devoted to long range planning and discussion of current critical issues. To a large extent, the Board is now always in session via internet, with 3 face to face meetings per year.

With the issue of medical physics clinical training and credentialing becoming more important, it became apparent that current medical physics educational programs were woefully unprepared to meet the new requirements mandated by ABR for 2012. In particular, there simply were not enough CAMPEP approved physics residency positions or programs available to meet the need of approximately 200–300 new medical physicists per year. Therefore an Ad Hoc Committee on Alternate Pathways to Medical Physics training was appointed, and their report led to creation of a Task Group within the Education Council to propose a long range solution to this problem. That work continues, and there is now good dialogue and unity of purpose between AAPM, CAMPEP, and the ABR on this issue.

With more and more AAPM business being conducted on-line, and with AAPM interaction with the outside world relying more and more on the internet a new position of Website Editor was created and was filled by Chris Marshall. The premise was that the website now functions in many respects like the journal and was quickly becoming AAPM's main link to the outside world, and as such required both technical direction (skillfully provided by AAPM's IT section under Michael Woodward) and scientific/professional direction to be provided by the new editor. In addition, Amols attempted to enliven the newsletter cover by replacing the standard presidential picture with scenes of himself and family members engaged in vigorous athletic activities.

Russell Ritenour

E. Russel Ritenour, Ph.D. was the 47th president of the AAPM, serving in the year 2006. He served on the Executive Committee 2005–2007 and was Chairman of the Board in 2007.

Dr. Ritenour received his Ph.D. in physics from the University of Virginia in 1980 and did a postdoctoral fellowship in medical physics at the University of Colorado from 1980 to 1982. Faculty in Colorado at the time included Bill Hendee, chair of the department, Paul Carson, and Geoff Ibbott. Bill Hendee had been president of the AAPM (1977) and Paul Carson and Geoff Ibbott would go on to become presidents (1987 and 1999, respectively). Dr. Ritenour stayed on the faculty at Colorado as Instructor and then Assistant Professor until leaving for the University of Minnesota in 1989. He also directed the graduate program in Medical Physics at Colorado from 1984 to 1989. At the U of MN, he was hired as an Associate Professor with Tenure. In 1993, he became Director of Graduate Studies in Biophysical Sciences and Medical Physics, an interdisciplinary graduate program with faculty from fourteen departments and a concentration area in medical physics. He was promoted to Full Professor with Tenure in 1999. Dr. Ritenour became a Fellow of the AAPM in 2001. His research interests include medical imaging, radiation safety, ultrasound, and dosimetry of radiopharmaceuticals.

During Dr. Ritenour's presidency, issues related to education and training were prominent. The expected passage of federal legislation that would provide incentives for states to license medical physicists led to the earmarking of substantial sums of money for aid to local chapters in encouraging their state legislators to pass licensure and registration regulations that would maintain high standards for medical physicists. Also in 2006, the growing shortage of clinically trained medical physicists was recognized. Various entities—RSNA, ASTRO, etc.—were providing funding for a few residencies, but this was recognized as inadequate to meet the demand. Out of an AAPM supported Education Summit that was held in January of 2006 came the concept of Distributed Residencies and the idea of a Doctorate in Medical Physics that would encompass 2 years of academic study and 2 years of clinical residency-like training. Such programs were to be self funded through tuition—comparable to that paid by medical, law, or dental students. The AAPM encouraged, through a vote of the Board of Directors in 2007, the ABR to make completion of a medical physics residency a requirement to sit for the Board Exam. In response to the AAPM's wishes, the ABR declared, later that year, that completion of an accredited residency would be a requirement to sit for the Board Examination in Physics in 2014.

During Dr. Ritenour's time as President (2006) and then as Chair of the Board (2007), there was an emphasis on getting the Board, despite its size of 37 members, to function more efficiently and to get ahead of issues rather than respond to them. The Board of AAPM made increasing use of e-mail as a means of disseminating information. At face-to-face meetings, board packets, thick three ring binder docu-



FIG. 6. Russ Ritenour and Jerry White in Minneapolis 2006.

ments, were eliminated except by special request. Board members received everything electronically. A special long-range planning meeting was held by the Board in the spring of 2007 and it was decided that the Board meetings would be decoupled from the committee meetings that were held just days prior to the Board meetings at the AAPM annual meeting and at RSNA. Despite its size, the Board began to function more as the drivers of the Association than as reactors to recent events (Fig. 6).

Mary Martel

Mary K. Martel was the 48th AAPM president, serving during the year 2007. She was the second female president of the AAPM (Ann Wright served in 1982). Mary also served on EXCOM as president-elect in 2006 and chair of the Board in 2008. She was born and raised in Kankakee, IL, and received her B.S. in chemistry from Illinois Benedictine College in 1978, as a coclassmate of 2009 AAPM president Maryellen Giger. Mary received her Ph.D. in nuclear chemistry in 1982 from Clark University in Worcester, MA, performing basic nuclear physics research at Brookhaven National Lab. She entered the medical physics field through an American Cancer Society Postdoctoral Fellowship at Memorial Sloan-Kettering Cancer Center in New York City. She has held faculty positions at Columbia-Presbyterian, University of Michigan, and University of Chicago, and is full professor at the University of Texas MD Anderson Cancer Center in Houston. She has carried out clinical research work in 3D treatment planning, dose escalation studies, normal tissue toxicity studies, outcomes analysis, and 3D brachytherapy, all with initial work stemming from strong support by the medical physics section at the University of Michigan.

The year 2007 was an active one for the medical physics profession, with multiyear efforts on interlocking issues. There was continued effort of the AAPM in the Alliance for Quality Medical Imaging and Radiation Therapy for passage of the CARE (consistency, accuracy, responsibility and excellence in medical imaging and radiation therapy) bill by Congress. The CARE bill required that providers utilize individuals who meet Federal education and credentialing stan-



FIG. 7. Jerry White, Mary Martel, and Russ Ritenour.

dards to perform the technical components of medical imaging and radiation therapy. These standards may include licensure, which will likely require board certification. A joint medical physics licensure subcommittee of the Professional Information and Clinical Relations committee (PICR) of the AAPM and the Board of Chancellors of the ACMP had been formed to work towards a common position in support of licensure. At its spring 2007 meeting, the AAPM Board passed a motion to endorse a policy that graduation from an accredited clinical physics residency program be a requirement for qualifying for board certification. In the autumn of 2007, the American Board of Radiology changed the requirements for eligibility that as of 2014, candidates must have graduated from an accredited residency program. The AAPM leadership launched a major initiative in late 2007 (which continued into 2008) to work towards achieving the 2014 goal by increasing the number of residency graduates to fulfill the ABR requirement. This initiative included strategic budget items, summit meetings, and facilitating residency accreditation. The professional doctorate concept also gained traction during 2007.

The AAPM was a cosponsor of a ground-breaking conference in February 2007 on the important topic of quality assurance of radiation therapy and the challenges of advanced technologies. Many important ideas were put forth that stimulated paradigm shifts in QA strategies. Also in 2007, The President's Symposium "Imaging as a Biomarker for Therapy Response: Challenges, Opportunities and Initiatives" reflected the growing interest in quantitative imaging and a newly formed collaboration of the RSNA and the AAPM in this area. One of the most important initiatives of 2007 was the "Image Gently" campaign led by the Alliance for Radiation Safety in Pediatric Imaging. This campaign sought to reduce radiation dosage in children from imaging procedures. The AAPM was a cosponsor of this influential inter-society collaboration (Fig. 7).

Gerald White

Gerald White is the 49th president of the AAPM, serving in 2008. Jerry received his B.S. in mathematics (with a concentration in physics) from The Pennsylvania State University in 1969. He became a secondary school teacher in math, physics, and AP nuclear science in Philadelphia. In connection with his nuclear science teaching he came to know John

Hale (AAPM charter member and 3rd President of the Association) who introduced him to the world of medical physics. Jerry subsequently attended the University of Kentucky where he received his M.S. in medical physics in 1978. After graduation, he accepted a position in a private practice medical physics group that provided physics services to the Penrose Cancer Center in Colorado Springs and other facilities in southern Colorado. He remains there today, now as a senior physicist in Colorado Associates in Medical Physics, a group of 14 members providing full time physics services to oncology centers as well as consulting services to hospitals throughout Colorado, Wyoming, and Kansas. Jerry is a Diplomate of the American Board of Radiology in Therapeutic Radiological Physics, Diagnostic Radiological Physics, and Medical Nuclear Physics.

Jerry has served in a variety of committees within the AAPM, particularly those with charges relating to Education, Economics, and Government Affairs. He has served on several committees of the American College of Radiology, including as chair of the Medical Physics Economics Committee and as a member of the ACR Economics Commission. He has also served on several ASTRO economics-related committees coordinating the interests of AAPM, ACR, and ASTRO in economic and reimbursement matters. He served on the AAPM Board of Directors from 1996 to 1999, as Secretary of the AAPM from 2000 to 2002, and as Chair of the Professional Council from 2003 to 2006.

The AAPM Presidency during the 50th anniversary year offers the opportunity to (in the words of the anniversary motto) "Honor the Past, Celebrate the Present, Prepare for the Future." Jerry's newsletter articles have encouraged the membership to reflect not only on the legacy of the AAPM but also on the broader connections of science, medicine, and society with the field of medical physics, and with their own practice and research efforts. The mandate to "Prepare for the Future" in the 50th year of the AAPM lays the challenge to both meet imperatives from outside sources as well as challenges that physicists have set for themselves. In response to new expectations for accreditation of educational programs and residencies, and for certification of medical physicists, the medical physics profession must redefine the nature of appropriate preparation for both clinical and research work and the preparation of those who wish to teach medical physics to physicians and aspiring medical physicists. The year will bring the beginnings of structural changes to both residency and degree programs in the form of distributed residencies using affiliated clinical sites to provide clinical training, and in the design of Professional Doctorate programs that will include residency training as part of the degree process.

The 50th year preparation for the future will also include outreach to government agencies, professional colleagues and AAPM members. The AAPM will aggressively pursue licensure for clinical medical physicists in several "demon-



FIG. 8. Angela Keyser.

stration" states as part of an increasing engagement in government affairs, including the addition of a second government affairs staff person. The Association continues to work for the CARE bill, which we anticipate will likely pass this year, giving a mandate to states to provide minimum standards for those who wish to practice clinical medical physics. In a cooperative project with the RSNA, AAPM will produce web-based teaching modules for the physics education of residents. AAPM has convened a series of meetings on the Teaching of Medical Physics, laying the foundation for elevating teaching to a level consistent with endeavors such as clinical practice and research. The Association has continued the outreach to physician specialties; AAPM now has formal representation on the Intersocietal Accreditation Commission, a multispecialty group that provides accreditation for imaging programs in nonradiology specialties. AAPM members will also see an increasing variety of meeting options, including focused research meetings and joint professional meetings with other associations such as ACMP.

At the writing of this Presidential summary, the 50th year is not quite half over. The achievements and hopes of this year form a mixture that can only be sorted out by those who follow. Let us anticipate that in the 75th year, the AAPM will find reason to honor what has been written in these Presidential summaries, celebrate the Association's collegial good fortune, and once again, prepare for the future.

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⁵AAPM Newsletter **25**(2), 2 (2000).

⁶AAPM Newsletter **25**(6), 2–3 (2000).

⁷AAPM Newsletter **26**(2), 7 (2001).

⁸AAPM Newsletter **25**(1), 3 (2000).

⁹AAPM Newsletter **25**(3), 3 (2000).

¹⁰AAPM Newsletter **26**(2), 6 (2001).

¹¹AAPM Newsletter **26**(2), 8 (2001).