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| **Reported by (Name):** | **Dr. Regina Fulkerson and Dr. Wesley Culberson** |
| **Organization:** | **Council on Ionizing Radiation Measurements and Standards** |
| **Position Title:** | **AAPM representative to CIRMS, co-chair CIRMS medical applications subcommittee, member of CIRMS Executive committee (RKF is treasurer)** |
| **Activity:** | **Annual meeting of CIRMS** |
| **Meeting Dates:** | **April 18-20, 2016** |
| **Meeting Location:** | **National Institutes of Standard and Technology (NIST), Gaithersburg MD** |
| **Payment $:** | **None (seeking travel reimbursement)** |
| **Reasons for Attending or not Attending** | **Chaired breakout sessions for medical subcommittee on Monday April 18th and Tuesday April 19th** |
| **Issues from Previous Meetings or Year:** | **Continuation of addressing the needs of the ionizing radiation community (**[**http://www.cirms.org/w/index.php?title=Executive\_Summary**](http://www.cirms.org/w/index.php?title=Executive_Summary)**)**  **See summary below** |
| **General Description of Activities of the Organization and/or Meeting:** | Report to Melissa Carol Martin, MS, FAAPM, FACM President-Elect,  and the AAPM  Regarding the Council on Ionizing Radiation Measurements and Standards (CIRMS)  By  Wesley Culberson, PhD, DABR  Regina K Fulkerson, PhD  AAPM liaisons to CIRMS  The Council on Ionizing Radiation Measurements and Standards (CIRMS) is organized for educational and scientific purposes to analyze the current and future needs of ionizing radiation measurements and standards. This includes the disciplines of medical applications, industrial applications, food irradiation, and societal benefits of radiation, including homeland security. CIRMS has a broad-based membership from industry, state and federal government, and academia. The main objectives of CIRMS are the advancement and dissemination of the physical measurements and standards needed for applications of ionizing radiation. CIRMS has played an important role for the discussion of radiation measurements and standards issues and provides a platform for experts from various background, allowing them to convey and share ideas thereby enhancing the field through. Further, a single detailed needs report is compiled with information from each discipline and sent to the legislative body with the intent of gaining financial and political awareness of the needs in our field. For more information, see: www.cirms.org.  As liaisons to CIRMS for the AAPM and co- chairs of the medical subcommittee, Regina Fulkerson and I are responsible for arranging the medical breakout session and providing medical plenary speakers at the CIRMS meeting. CIRMS is generally a meeting with international flavor, so in addition to the AAPM interests, the meeting covers what is occurring around the world regarding the use of ionizing radiation.  The CIRMS annual meeting was held on the National Institute for Standards and Technology (NIST) campus in Gaithersburg, MD for three days on April 17-20, 2016. The theme of the meeting was “A Matter of Scale: Measurement Standards from the Nano to the Giga”. The program is attached. The plenary sessions included presentations on medical applications, radiation event preparedness, presence of ionizing radiation in food sources, and materials processing with ionizing radiation. There were also several student presentations that covered a range of topics including three from medical graduate students: Air Kerma Strength determination for a new 192Ir source, Air Kerma Strength measurements for a new direction 103Pd source, and 3D gel dosimetry for use with an MR/Linac system. The student abstract winners each year are given a free year of membership to CIRMS and are encouraged to continue to be involved in the organization. Breakout sessions were on Monday and Tuesday for each of the subcommittees, which include Medical Applications, Radiation Protection, and Industrial Applications and Materials Effects. The medical plenary talks covered topics including: The need for standardization in dosimetry for proton therapy and proton therapy treatment planning, the need for quantitative imaging standards for PET/SPECT/and CT, MRI-based accelerator dosimetry, new ICRU recommendations on important dosimetry quantities, and Monte Carlo simulations in the presence of magnetic fields.  Many of the attendees to CIRMS from the field of medical physics are also active members of the AAPM with leadership roles in various subcommittees. The joint interests of CIRMS and the AAPM are enhanced at the annual meeting of CIRMS, allowing for a discussion among the experts of the fundamental origin of any measured value in the clinical setting. As the field of medical physics is rapidly evolving, CIRMS is committed to providing a forum to establish the needs of standardization for any new device or radiotherapy technique that comes to market in order to provide safe and effective treatments. This was very apparent in our discussions at the CIRMS annual meeting as several of our breakout talks concerned the lack of consistency or existence of standards or metrics to adequately and quantitatively describe image quality. As AAPM liaisons, we strive to bring awareness to the needs of accurate dosimetry through the activities of CIRMS to the AAPM members. The Medical Subcommittee agenda is attached. We are already looking forward to next years’ meeting (to be held March 27th-29th, 2017) as it will be the 25th anniversary of the organization and the meeting theme will include a review of our achievements thus far, how to best address our current needs, and what will be areas of interest for the future. Please let us know if you would like to discuss any items further or have any questions about our experiences.  Respectfully submitted by  Wesley Culberson  Regina Fulkerson |
| **Issues for AAPM:** | **See above** |
| **Budget Request ($):** | **Travel reimbursement not to exceed $2000** |