

Reported by (Name):	Wesley Culberson
Organization:	University of Wisconsin - Madison
Position Title:	Associate Professor and UWADCL Director
Activity:	Council on Ionizing Radiation Measurements and Standards (CIRMS) Annual meeting
Meeting Dates:	April 26-27, 2021
Meeting Location:	Virtual
Payment \$:	None requested for 2021
Reasons for Attending or not Attending	I am a technical expert on radiation dosimetry representing the interests and needs of the AAPM.
Issues from Previous Meetings or Year:	A number of radiation dosimetry standards were discussed at the previous annual meeting at NIST in Spring, 2019. The outstanding issues include radiobiology standards for radiobiological experiments, small field dosimetry, and particle therapy accelerator calibration and dosimetry.
General Description of Activities of the Organization and/or Meeting:	CIRMS is a multi-disciplinary non-profit organization which seeks to elevate the needs of all aspects in the field of ionizing radiation, drawing on the experience and knowledge of industry, academia, and government professionals. Through this collaborative group, the needs of our field are distributed to government agencies and potential funding sources.
Issues for AAPM:	CIRMS will be working to create a Needs Report in the following year to present the needs for standardized dosimetry particularly in areas of radiation biology, targeted radionuclide therapy, and Flash therapy that affects radiation therapy research. There are also needs for more accurate radiation dosimetry in MRI environments, and updates to the clinical dose reporting methods for particle therapies such as RBE and LET.
Budget Request (\$):	N/A

Council on Ionizing Radiation Measurements and Standards

2021 Annual Meeting Agenda

April 26-27, 2021

Virtual Meeting over WebEx

Meeting Link will be provided to all registrants

Monday, April 26, 2021 (All times are EDT)

10:00 Welcome

10:00 *President's Welcome & Sponsor Introductions* (5 min)
Wesley Culberson, PhD, President, CIRMS

10:05 *Announcements and Introduction to Needs Report* (5 min)
Matthew Mille, PhD, President-Elect, CIRMS

10:10 Plenary Session

10:10 *FLASH Therapy Research and Preclinical Data* (20 min)
Adam Harrington, PhD, Varian Medical Systems, Palo Alto, CA

10:30 *Radiation Processing Dosimetry – From Dosimeter to Distribution* (20 min)
Malcolm McEwen, PhD, National Research Council Canada (NRCC), Ottawa, ON

10:50 *Technical Aspects on the Development and Use of Standards* (20 min)
Leticia Pibida, PhD, National Institute of Standards and Technology (NIST) Gaithersburg, MD

11:10 5-Minute Break

11:15 Junior Investigator Symposium

(chair: Amitava Adhikary, PhD, Oakland University)
11:15 *2020 and 2021 Junior Investigator Competition Winners' Presentations* (45 min)
Jacob Lambeck, University of Wisconsin – Madison
Daniel Alexander, Dartmouth College, Hanover, NH
Felix Mathew, McGill University, Montreal, Canada
Autumn Walter, University of Wisconsin – Madison
Drew Carlton, University of Kentucky – Lexington
Emily King, University of Wisconsin – Madison
Alexandra Bourgouin, PhD, PTB, Braunschweig, Germany

12:00 Adjourn

Tuesday, April 27, 2021 (All times are EDT)

10:00 Medical Applications Subcommittee

(chair: Matthew Mille, PhD, National Cancer Institute)

10:00 *Applications of Plastic Scintillation Dosimetry for Rad. Onc.: A Startup Founder Perspective* (18 min)
Francois Therriault-Proulx, PhD, Co-founder and CEO, Medscint

10:18 *Evaluation of Proton Accuracy Improvements with Dual-Energy CT* (18 min)
Sina Mossahebi, PhD, University of Maryland School of Medicine

10:36 *Challenges in Multi-Center Quantitative Imaging for TRT Dosimetry* (18 min)
Eric Frey, PhD, Johns Hopkins University

10:55 5-Minute Break

11:00 Industrial Applications Subcommittee

(chair: Ileana Pazos, PhD, National Institute of Standards and Technology)

- 11:00 *Current Solutions and Needs in Dosimetry for Radiation Processing Applications* (18 min)
Mike Pageau, GEX Corporation
- 11:18 *Chip-Scale, Integrated Photonics for Radiation Dosimetry and Calorimetry* (18 min)
Nikolai Klimov, PhD, National Institute of Standards and Technology (NIST) Gaithersburg, MD
- 11:36 *Recent Advances Towards a Deployable Emergency Response Dosimetry System (ERDS)* (18 min)
Jason Campbell, PhD, National Institute of Standards and Technology (NIST) Gaithersburg, MD

11:55 5-Minute Break

12:00 Radiation Safety and Security Subcommittee

(chair: Stephanie Healey, PhD, Food and Drug Administration)

- 12:00 *Performance Testing Samples in Radioactive Analysis:
What are They and How to Choose the Appropriate Ones?* (25 min)
Evgeny Taskaev, PhD, Eckert & Ziegler
- 12:25 *A New Technology That Will Help Radiation Labs be More Productive and Safer* (25 min)
Robert Jones, PhD, Centers for Disease Control and Prevention (CDC)
- 13:00 Closing Remarks and Adjourn**
Wesley Culberson, PhD, President, CIRMS