

MEDICAL APPLICATIONS SUBCOMMITTEE

Working Group Sessions

Chairs: Regina Fulkerson, Wes Culberson (University of Wisconsin) and Ronnie Minniti (NIST)

Monday, April 27, 2015

Working Group Session I

1:45 – 3:30 pm

Theme: **External Beam**

- 1:45-2:05 Measurements of Stopping Powers Using Single Electron Counting
Malcom McEwan, NRC Canada
- 2:05-2:25 The Physics of Proton Therapy
Wayne Newhauser, LSU, Department of Medical Physics
- 2:25-2:45 Small Field Dosimetry in Radiotherapy from a Standpoint of Basic Research
Guelda Massillon-JL, Universidad Nacional Autonoma de Mexico
- 2:45-3:30 Questions for speakers and discussion on "current needs"
Interactive discussion with audience
- 3:30-3:45 Break

Working Group Session II

3:45 – 5:15 pm

Theme: **Brachytherapy**

- 3:45-4:05 End of Life for Brachytherapy Devices
Zoubir Ouhib, Lynn Cancer Institute, Boca Raton, FL
- 4:05-4:25 New NIST Standard for Electronic Brachytherapy
Michael Mitch, NIST
- 4:25-4:45 Addressing the Dosimetry Challenges of Using a Titanium Applicator with a Low Energy
Brachytherapy Source
Sam Simiele, University of Wisconsin, Department of Medical Physics
- 4:45-5:15 Questions for speakers and discussion on "current needs"
Interactive discussion with audience

5:15 Adjourn

Tuesday, April 28, 2015

Working Group Session III

1:45 – 3:30 pm

Theme: **Radiation Biology, "Research, Devices & Dosimetry"**

- 1:45-2:05 Dose is More than a Number: The Growing Need for "Radiobiology Dosimetry Standards"
Jim Deye, NIH/NCI (retired)
- 2:05-2:25 Output Verification of Radiobiological Irradiators
Kurt Pedersen, University of Wisconsin, Department of Medical Physics
- 2:25-2:45 Novel High-throughput Irradiators for In Vitro Radiation Sensitivity Bioassays
Bryan Bednarz, University of Wisconsin, Department of Medical Physics
- 2:45-2:55 Poster Summary: Photon and Electron Beam Dosimetry using Calorimetry at ARPANSA
Ganesan Ramanathan, ARPANSA
- 2:55-3:30 Questions for speakers and discussion on "current needs"

Interactive discussion with audience

3:30-3:45 Break

Working Group Session IV

3:45 – 5:15 pm

Theme: **Frontiers of Medical Physics**

3:45-4:05 Ionization Chamber Construction

Brian Hooten, Standard imaging

4:05-4:25 Stereotactic Radiotherapy for Breast Cancer

Yildrim Mutaf, University of Maryland, Department of Radiation Oncology

4:25-4:45 Commissioning an IRay System for Ocular Stereotaxy using Integrated Tissue Air Ratio

Justin Hanlon, Oraya Therapeutics, Inc.

4:45-4:55 Poster Summary: Evaluation of a Lung Density CT SRM

Heather Chen Mayer, NIST

4:55-5:15 Questions for speakers and discussion on "current needs"

Interactive discussion with audience

5:15 Adjourn