

RAMPS INC.

Radiological and Medical Physics Society of New York

MEMORIAL HOSPITAL, DEPARTMENT OF MEDICAL PHYSICS, 1275 YORK AVE., NEW YORK, NY, 10021, (212) 639-7353

The Radiological and Medical Physics Society of New York and the Greater New York Chapter of the Health Physics Society sponsor the

2010 SPRING SYMPOSIUM

Error Prevention and Patient Safety for Radiation Treatment and Diagnosis

1:00-5:30P.M., Friday, April 30, 2010

Hoffmann Auditorium, Memorial Sloan-Kettering Cancer Center
1275 York Ave, New York, NY

Before April 23rd: RAMPS/GNYCHPS Members: \$40, Non-Members: \$50. **After April 23rd:** Members: \$50, Non-Members: \$60. No charge for students, fellows, and residents (letter from advisor attesting status or student ID required). Register by phone: 212-639-8300 or by email: mcdonnem@mskcc.org.

Objective: The speakers will review state-of-the-art technologies in radiation therapy and imaging with an emphasis on those techniques that address quality assurance issues in light of the recent media attention and proposed solutions from process analysis and error prevention techniques.

- 12:30-1:00 **Registration**
- 1:00-1:10 **Introduction**
Cheng-Shie Wu, Ph.D., President of RAMPS, Columbia University, New York, NY
- 1:10-1:50 **Radiotherapy and Radiology in the 21st Century: Risks and Benefits**
Ellen Yorke, Ph.D., Memorial Sloan-Kettering Cancer Center, New York, NY
Pat Zanzonico, Ph.D., Memorial Sloan-Kettering Cancer Center, New York, NY
- 1:50-2:30 **Technological Challenges of Modern Radiotherapy Equipment**
James Galvin, Ph.D., Thomas Jefferson University Hospital, Philadelphia, PA
- 2:30-3:10 **Patient Safety Concerns for Radiological Imaging**
Lawrence T. Dauer, PhD, Memorial Sloan-Kettering Cancer Center, New York, NY
- 3:10-3:30 **Coffee Break**
- 3:30-4:10 **Failure Modes and Effects Analysis (FMEA) for Radiation Medicine**
Ramon Alfredo C Siochi, Ph.D., University of Iowa, Iowa City, Iowa
- 4:10-4:50 **Error Prevention Techniques: From Nuclear Industry to Medical Uses of X-Rays**
Edward F. Maher, Sc.D., CHP, President Elect, Health Physics Society
- 4:50-5:30 **Panel Discussion**
Jenghwa Chang, Ph.D., Weill-Cornell Medical College, New York, NY

Note: CAMPEP, MDCB, ARRT Category A, or ABHP credits will be awarded to participants.

RAMPS INC.

Radiological and Medical Physics Society of New York

MEMORIAL HOSPITAL, DEPARTMENT OF MEDICAL PHYSICS, 1275 YORK AVE., NEW YORK, NY, 10021, (212) 639-7353

Learning Objectives for 2010 Spring Symposium

Error Prevention and Patient Safety for Radiation Treatment and Diagnosis

Co-sponsored by the Radiological and Medical Physics Society of New York and the Greater New York Chapter of the Health Physics Society

Program Organizers:

Jenghwa Chang, Ph.D., President Elect of RAMPS, Weill-Cornell Medical College, New York, NY
Lawrence T. Dauer, PhD, CHP, Memorial Sloan Kettering Cancer Center, New York, NY

General Objective: The speakers will review state-of-the-art technologies in radiation therapy and imaging with an emphasis on those techniques that address quality assurance issues in light of the recent media attention and proposed solutions from process analysis and error prevention techniques.

Introduction

Speaker: Cheng-Shie Wu, Ph.D., President of RAMPS, Professor, Columbia University, New York, NY Email: csw6@columbia.edu

Topic 1: Radiotherapy and Radiology in the 21st Century: Risks and Benefits

Speakers: Ellen Yorke, Ph.D., Attending Physicist, Memorial Sloan-Kettering Cancer Center, New York, NY Email: yorkee@mskcc.org

Pat Zanzonico, Ph.D., Associate Attending Physicist, Memorial Sloan-Kettering Cancer Center, New York, NY Email: zanzonip@MSKCC.ORG

Objective: The speakers will familiarize the audience with the technology development of modern radiology and radiotherapy, and review recent incidents reported in NY Times. Participants will also learn the potential hazard and risk/benefit analysis of medical uses of x-rays.

Topic 2: Technological Challenges of Modern Radiotherapy Equipment

Speaker: James Galvin, Ph.D., Professor, Thomas Jefferson University Hospital, Philadelphia, PA Email: james.galvin@jeffersonhospital.org.

Objective: Participants will learn about the technical challenges for modern radiotherapy including R&V, IGRT and IMRT systems. The speaker will define different classes of errors and failures with an emphasis on the different QA procedures and checks that can be used to minimizing each type of situation. The speaker will also provide insights on how the complexity of newer technologies might have caused the recently reported catastrophic failures in radiation dose delivery for cancer treatment.

Topic 3: Patient Safety Concerns for Radiological Imaging

Speaker: Lawrence T. Dauer, PhD, CHP, Assistant Attending Health Physicist, Memorial Sloan Kettering Cancer Center, New York, NY Email: dauerl@mskcc.org.

Objective: Participants will be able to identify radiation-related safety concerns in modern radiological imaging applications, as well as discuss current low-dose risk understanding.

RAMPS INC.

Radiological and Medical Physics Society of New York

MEMORIAL HOSPITAL, DEPARTMENT OF MEDICAL PHYSICS, 1275 YORK AVE., NEW YORK, NY, 10021, (212) 639-7353

Topic 4: Failure Modes and Effects Analysis (FMEA) for Radiation Medicine

Speaker: Ramon Alfredo C Siochi, Ph.D., Assistant Professor, University of Iowa, Iowa City

Email: ralfredo-siochi@uiowa.edu.

Objective: Participants will learn (1) the general concept of FMEA, (2) how FMEA can be used for radiotherapy workflow improvement, (3) reverse FMEA for implementation of new technology and (4) FMEA after an accident – what can we learn from the NY Times.

Topic 5: Error Prevention Techniques: From Nuclear Industry to Medical Uses of X-Rays

Speaker: Edward F. Maher, Sc.D., CHP, President Elect of Health Physics Society Email:

emaher@moellerinc.com

Objective: Participants will learn about error prevention techniques and quality assurance measures that have been developed for the nuclear industry and understand methods for incorporating these into current medical uses of x-rays as a method of continuous improvement of patient safety.

Topic 6: Panel Discussion

Host: Jenghwa Chang, Ph.D., President Elect of RAMPS, Associate Professor, Weill-Cornell Medical College, New York, NY Email: jec2046@med.cornell.edu

Objective: Participants will have ample opportunities to interact with all speakers on burning issues related to error prevention and patient safety for radiation treatment and diagnosis.