Radiological and Medical Physics Society of New York, Inc.
Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10065

2021 RAMPS Symposium

New Developments in QA and Therapy Outcome Analysis

Friday September 10th, 2021,
9:30am – 4:25pm
Virtual Meeting via Zoom

Continuing Education:

4.15 CAMPEP (Medical Physics) credits have been applied for.

Meeting Program:

9:30 - 9:45  Welcome
Linda Hong; President, RAMPS
Department of Medical Physics, MSKCC

Introduction
Jussi Sillanpaa; President-Elect, RAMPS
Department of Medical Physics, MSKCC

9:45 - 10:35  Commissioning and QA for innovative brachytherapy sources and applications
Mark Rivard, PhD
Rhode Island Hospital / Brown University

10:35 - 11:25  HyTec
Ellen Yorke, PhD and Andrew Jackson, PhD
Department of Medical Physics, MSKCC

11:25 - 12:25  Showcase with vendors

12:25 - 1:25  Lunch/Coffee – Visit the vendors virtually
1:25 - 2:15  **AI and QA?**  
Peter Klages, PhD  
Department of Medical Physics, MSKCC

2:15 - 3:05  **AAPM TG-155 as a foundation for SRS patient safety**  
Jean Moran, PhD  
Department of Medical Physics, MSKCC

3:05 - 3:55  **Recent developments in Gammaknife QA**  
Jenghwa Chang, PhD  
Northwell Health

3:55 – 4:05  **Closing Remarks**

**Registration**  
Registration is by PayPal (coming soon):  
[http://chapter.aapm.org/ramps/RAMPS/Payment_%26_Donation.html](http://chapter.aapm.org/ramps/RAMPS/Payment_%26_Donation.html)  
RAMPS Members: $40, Non-Members: $30  
Student/Resident (with attesting letter or ID): $5.00

**Accreditation Statement**  
CAMPEP credit (4.15 h) has been applied for.

**Learning objectives**

**Commissioning and QA for innovative brachytherapy sources and applications**

Be familiar with recent developments in brachytherapy sources

Understand the commissioning and QA process for these sources

**HyTec**

Be familiar with earlier collaborative efforts that help modern radiation therapy to avoid excessive complications while delivering sufficient dose to the tumor with conventional fractionation.

Understand some of the reasons that planning SBRT dose distributions requires particular care.

Understand some of the difficulties HyTEC faces in arriving at their conclusions.
AI and QA?

Understand the different types and hierarchy of AI methods

Understand the basics of Distributions, Regularization, Loss Functions

Understand/be able to recognize some of the basic Deep Learning models

AAPM TG-155 as a foundation for SRS patient safety

Understand the clinical drivers for patient safety

Learn how to select detector for small field dosimetry

Understand the need to incorporate an end-to-end test to support an SRS program

Recent developments in Gammaknife QA

Be familiar with recent developments in dosimetric and mechanical QA of Gammaknife units

Understand remaining uncertainties in Gammaknife QA