

# NCI-IOTN-SITC-AAI Workshop on Combining Immunotherapy with Radiotherapy: Opportunities and Challenges for Clinical Translation

January 16-17, 2024  
Natcher Auditorium  
NIH, Bethesda, MD

## Agenda

(Video timestamps in blue)

January 16, 2024 ([video here](#))

**8:30-8:35 AM**

**NCI Welcome to the Workshop**

Dr. James Doroshow, DCTD Director, NCI

(1:24)

**8:35-9:00 AM**

**Welcome and Introduction to the Workshop**

Sandra Demaria PhD Weill Cornell Medicine

- History of the study of radiation and immune interactions

(7:37)

Zachary Morris MD PhD, University of Wisconsin–Madison

- State of the field – identifying needs
- Introduce the Breakout Session Approach – Teams

(24:06)

**9:00-10:15 AM**

**The State of the Science**

**Session 1** – The radiated tumor microenvironment: challenges, opportunities, and appropriate model systems

– Moderator: Arta Monjazeb MD PhD, UC Davis Comprehensive Cancer Center

1. Radiotherapy quality: effects of time, dose, fx, and site (46:35)
  - Dr. Heather McGee (City of Hope)
2. Radiotherapy quality: Particles and Spatial Fractionation (1:04:30)
  - Dr. Michele Mondini (Gustave Roussy)
3. Effects of patient heterogeneity and how to best model this. (1:24:25)
  - Dr. Michael Kent (UC Davis)
4. Panel discussion (1:45:10)

**BREAK 10:15-10:30 AM**

**10:30-11:45 AM**

**Session 2** – Barriers that hinder immune response in the irradiated tumor: an insurmountable challenge or opportunity for innovation?

– Moderator: Ralph Weichselbaum MD, University of Chicago Medicine

1. RT effects on TME (2:08:13)
  - Dr. Kristina Young (Providence)
2. Immune suppressive lineages (2:20:37)
  - Dr. Lorenzo Galluzzi (Cornell)
3. Tumor draining LNs (2:31:29)
  - Dr. Sana Karam (U. Colorado)
4. Panel discussion (2:46:27)

## **LUNCH 11:45 AM -1:15 PM**

### **1:15-2:30 PM**

#### **The State of Clinical Translation**

**Session 3** – Appraisal of clinical trials combining radiation and immunotherapy: Post-mortems and next generation approaches to study design and patient selection

– Moderator: Silvia Formenti MD, Weill Cornell Medicine

1. Clinical trials evaluating abscopal effects (3:18:51)  
– Dr. Willemijn Theelen (Netherlands Cancer Institute)
2. Clinical trials adding IO to local/regional RT (3:39:04)  
– Dr. Joe Chang (MDACC)
3. RT to all sites, Oligometastatic settings (3:55:56)  
– Dr. Mai Anh Huynh (DFCI)
4. Panel discussion (4:12:40)

### **2:30-3:45 PM**

**Session 4** – Next generation radiotherapy and immunotherapy combinations: new approaches and novel agents

– Moderator: James Welsh MD, MD Anderson Cancer Center

1. Patient selection (4:40:12)  
– Dr. Sean Pitroda (U. Chicago)
2. Radiopharmaceuticals and other RT approaches (5:02:38)  
– Dr. Lawrence Fong (UCSF)
3. Next generation radiotherapy and immunotherapy combinations (5:27:52)  
– Dr. James Welsh (MDACC)
4. Panel discussion

## **BREAK 3:45-4:00 PM**

### **4:00-5:15 PM**

**Session 5** – Immunologic and computational assessment of radiotherapy and immunotherapy interactions: State of the art in treatment effect assessment in digital twins

– Moderator: Heiko Enderling PhD, MD Anderson Cancer Center

1. How can we use data to improve clinical outcomes? (5:51:09)  
– Dr. Caroline Chung (MDACC)
2. Mechanistic mathematical modeling to optimize radiation – immune synergy (6:23:19)  
– Dr. Heiko Enderling (MDACC)
3. Using clinical and experimental data to build mathematical and computational models that help decipher the biological consequences of radiation and immunotherapy (6:34:22)  
– Dr. Clemens Grassberger (UW / Fred Hutch Cancer Center)
4. Panel discussion (6:48:32)

### **5:15-5:30 PM – Day 1 Conclusion – Discussion of Day 2 Goals, Workshop Assignments**

Samir Khleif MD, Georgetown University

Andrew Sikora MD PhD MDACC

(7:09:09)

January 17, 2024 ([video here](#))

**8:30-8:45 AM**

**Session 6** – Training, funding, and clinical research opportunities for investigators with a focus on the interface of radiation and immunotherapies

– Moderator: Connie Sommers PhD, National Cancer Institute (NCI) (0:00)

**8:45-9:30 AM**

**Session 7** – Fostering academic – corporate partnerships at the interface of radiation and immunotherapies (13:50)

– Moderator: Charles Drake MD PhD, Janssen Pharmaceutical Companies of Johnson & Johnson

1. Perspectives from IO pharmaceutical industry (16:07)
  - Dr. Kiran Devisetty (Janssen Combined Pharma/Interventional Group)
2. Perspectives from radiopharmaceutical industry on combined modality approaches (35:09)
  - Dr. Kwame Twumasi-Boateng (Telix Pharmaceuticals)
3. Panel discussion (53:41)

**9:30 AM-1:00 PM**

**INTERACTIVE WORKSHOP**

- 9:30-10:15 AM **Break-out session 1** – Define the opportunities and challenges for clinical translation of radiation-immunotherapy combinations
  - Six pre-assigned in-person teams with mixed expertise and one virtual team (proceed to your assigned breakout room based on the sticker color on your badge). (1:10:13)
  - Each team with an assigned set of “Team Captains”
    - Purple (Rm G1/G2): Quaovi Sodji + Anthony Nguyen
    - Red (Rm A): Ravi Patel + Simone Krebs
    - Green (Rm E1): Anusha Kalbasi + Caroline Kerr
    - Yellow (Rm C1/C2): Claire Vanpouille-Box + Logan Vick
    - Blue (Rm D): Todd Aguilera + Irene Ong
    - Black (Rm E2): Fernanda Herrera + Hari Menon
    - Virtual: Alan Hutson + DeeDee Smart
  - Each team is tasked with answering the following questions:
    - What is the most important question(s) that need to be addressed in the field?
    - What are the challenges and opportunities that you see in addressing this question?
    - What is your vision for how we can answer this critical question?
- 10:15-10:45 AM Breakout session 1 reports – 5 min reports from each team (1:31:36)
  - Moderator Dr. Jon Schoenfeld (DFCI)

**BREAK 10:45-11:00**

- 11:00-11:45 AM **Break-out session 2** - Study /project design team competition (2:02:44)
  - Describe the study you would design (preclinical or clinical) to address the most important opportunity or challenge in the clinical translation of radiation-immunotherapy combinations.
- 11:30-12:00 PM Break-out session 2 reports – 5 min reports from each team (2:25:25)
  - Moderator Dr. Joshua Brody (Mount Sinai)
- 12:00-12:45 PM – Panel Discussion Moderated by Zachary Morris and Sandra Demaria
  - All Moderators, Organizers, and Speakers reflect on break-out team projects, and vote for winning team
  - Awarding of a small prize to the winning team

**12:45-1:00 PM Concluding remarks and follow-up plan, white paper discussion**

- Lawrence Fong MD, UCSF (3:19:28)