



David Geffen  
School of Medicine

# MR-Guided Radiation Therapy: The Next Frontier in Radiation Oncology

Friday, May 17, 2019  
UCLA Meyer & Renee Luskin  
Conference Center  
Los Angeles, CA

**CME** OFFICE OF  
CONTINUING  
MEDICAL  
EDUCATION  
DAVID GEFFEN SCHOOL OF MEDICINE at **UCLA**



# MR-Guided Radiation Therapy: The Next Frontier in Radiation Oncology

## Course Description

Radiation therapy is a mainstay treatment for cancer. Magnetic Resonance Imaging has been recently integrated into the treatment room, providing for the first time the advantages of real-time soft tissue imaging and concurrent radiation treatments. Benefits of MR-Guided Radiation Therapy (MRgRT) include superior soft tissue imaging, the ability to track tumors and gate treatment delivery, and the opportunity to adapt for inter- and intra-fraction anatomical variations. MRgRT also offers the potential for providing sophisticated biomarker guided treatments. As clinical adoption of MRgRT expands, there is a need to develop work flows and quality assurance techniques, innovate imaging science, and assess clinical outcome benefits. This course will update the status of MRgRT, examine clinical treatment scenarios, provide strategies to overcome implementation challenges, and review current research programs designed to explore the benefits of MRgRT.

## Target Audience

Radiation oncologists, medical physicists, dosimetrists, radiation therapists, other allied health professionals, and trainees interested in exploring the benefits and challenges of MRgRT.

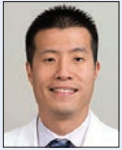
## Course Objectives

At the conclusion of the course, participants should be better able to:

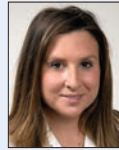
- List the benefits of MRgRT over conventional modern radiation therapy.
- Discuss the challenges and strategies of implementing MRgRT.
- Compare the benefits and limitations of the currently available MRgRT systems.
- Describe the adaptive radiation therapy work flow.
- Describe the application of MRgRT in clinical scenarios such as head and neck, pancreas, liver, and prostate cancers.
- Describe current research developing and integrating functional imaging for personalized radiation therapy prescriptions.

# Faculty

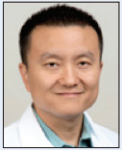
## COURSE DIRECTORS



**Percy Lee, MD**  
Associate Professor &  
Vice Chair of Education  
Chief, Thoracic Radiation  
Oncology  
UCLA Radiation Oncology



**Ann Raldow, MD, MPH**  
Assistant Professor  
Chief, Gastrointestinal  
Oncology  
UCLA Radiation Oncology



**Minsong Cao, PhD**  
Associate Professor  
Associate Vice Chair of  
Education  
UCLA Radiation Oncology



**Daniel Low, PhD**  
Professor &  
Vice Chair of Physics  
UCLA Radiation Oncology

## GUEST FACULTY

**Michael Bassetti, MD**  
Assistant Professor  
University of Wisconsin School of  
Medicine & Public Health  
Madison, Wisconsin

**Olga Green, PhD**  
Assistant Professor  
Chief of Service for Adaptive MR-Guided  
Radiotherapy Program  
Washington University School of Medicine  
St. Louis, Missouri

**Allen Li, PhD**  
Professor & Chief of Medical Physics  
Medical College of Wisconsin  
Milwaukee, Wisconsin

## UCLA FACULTY

**Robert Chin, MD, PhD**  
Assistant Professor  
UCLA Radiation Oncology

**Paul Finn, MD**  
Professor  
UCLA Radiology

**Peng Hu, PhD**  
Associate Professor  
UCLA Radiology

**Amar Kishan, MD**  
Assistant Professor  
UCLA Radiation Oncology

**James Lamb, PhD**  
Assistant Professor  
UCLA Radiation Oncology

**Ke Sheng, PhD**  
Professor  
UCLA Radiation Oncology

**Michael L. Steinberg, MD**  
Professor & Chair  
UCLA Radiation Oncology

**Yingli Yang, PhD**  
Assistant Professor  
UCLA Radiation Oncology

# Program

7:00 Breakfast & Registration

8:00 Welcome & Introduction Percy Lee, MD

## Session I: Introduction to MRgRT Basics

8:10 Introduction to Clinical MR Sequences Peng Hu, PhD

8:40 MR Safety Minsong Cao, PhD

9:10 QA/QC for MRgRT System Olga Green, PhD

9:40 Break

## MR-Guided RT Systems & Work Flow

Moderator: Percy Lee, MD

10:00 System Overview, Comparison & Debate Allen Li, PhD and Daniel Low, PhD,

## Session II: Technical Features and Benefits

11:00 Motion Management James Lamb, PhD

11:30 Work Flow, Adaptive Planning & New Process of Care Percy Lee, MD

12:00 Lunch

## MR-Guided RT Systems & Work Flow

1:00 GI – Pancreas Ann Raldow, MD, MPH

1:25 GI – Liver Michael Bassetti, MD

1:50 GU/Prostate – Bladder Amar Kishan, MD

2:15 Head & Neck Robert Chin, MD, PhD

2:40 Break

## Session III: Advanced MR Technologies

3:00 Functional MRI Yingli Yang, PhD

3:30 Novel Contrast Imaging Paul Finn, MD

4:00 Future of MRgRT Ke Sheng, PhD

4:30 The Promise of MRgRT Michael L. Steinberg, MD

5:00 Reception at UCLA Luskin Conference Center

## Accreditation Statement

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA, designates this live activity for a maximum of *7 AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This course has applied to CAMPEP for approval of 7.2 MPCEC hours. The course has applied to Medical Dosimetrist Certification Board (MDCB) CE Credits

## Disclosure Statement

The FDA has issued a concept paper that classifies commercial support of scientific and educational programs as promotional unless it can be affirmed that the program is “truly independent” and free of commercial influence. In addition to independence, the FDA requires that non-promotional, commercially supported education be objective, balanced and scientifically rigorous. The policy further states that all potential conflicts of interest of the CME staff and faculty be fully disclosed to the program’s participants. In addition, Accreditation Council for Continuing Medical Education policy mandates that the provider adequately manages all identified potential conflicts of interest prior to the program. UCLA fully endorses the letter and spirit of these concepts.



# General Information

## Location

UCLA Luskin Conference Center  
425 Westwood Plaza  
Los Angeles, CA 90095  
(855) 522-8252

## Parking

From the 405 freeway, exit Wilshire Blvd. East toward Westwood. Turn left on Westwood Blvd., travel past Charles E. Young Dr. South and turn left on Parking Structure 8 Driveway. Proceed up the ramp to the rooftop level to park. Pay-by-plate machines are available on the rooftop level. Credit cards are accepted. A pedestrian walkway/bridge connects Parking Structure 8 to the Luskin Conference Center. Take the east stairs down one level (from Level 4 to Level 3) and cross over Strathmore Place. The entrance will be on your right-hand side.

## Local Accommodations

*UCLA Luskin Conference Center*  
425 Westwood Plaza  
Los Angeles, CA 90095  
Reservations: (855) 522-8252

*Hotel Palomar*  
10740 Wilshire Blvd.  
Los Angeles, CA 90024  
Reservations: (310) 475-8711

*W Los Angeles – Westwood Hotel*  
930 Hilgard Avenue  
Los Angeles, CA 90024  
Reservations: (310) 208-8765

## Fees

Physicians and Physicists: \$350  
Dosimetrists, Therapists and  
Allied Health Professionals: \$200  
Trainees: \$150

## Enrollment

### Online:

Go to [www.cme.ucla.edu/courses](http://www.cme.ucla.edu/courses) and click on MR-Guided Radiation Therapy: The Next Frontier in Radiation Oncology. You may use your MasterCard, Visa, American Express or Discover card to register.

### By Mail:

Mail the attached form to:  
UCLA Office of Continuing Medical Education  
David Geffen School of Medicine at UCLA  
MR-Guided Radiation Therapy  
10920 Wilshire Blvd., Suite 1060  
Los Angeles, CA 90024-6512

### By Fax:

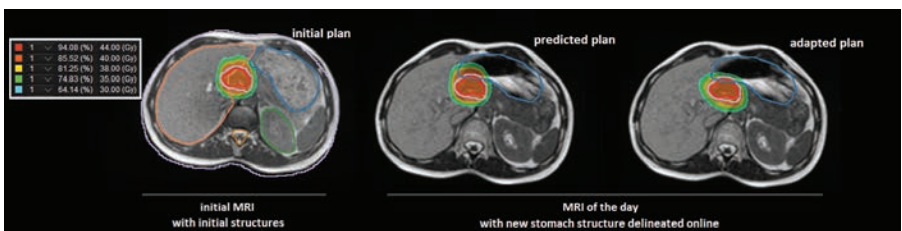
Send the completed enrollment form with credit card information and authorizing signature to (310) 794-2624

### By Phone:

Call (310) 794-2620

## Refunds

Cancellations must be received in writing by Monday, May 6, 2019 and will be subject to a \$50 processing fee. No refunds will be granted after that date. If, for any reason, the course must be cancelled, discontinued, or rescheduled by the Office of Continuing Medical Education, a full refund will be provided.



# Application for Enrollment

Winter 2018

(please print)

Course Title and Number	Registration Fee
<b>MR-Guided Radiation Therapy: The Next Frontier in Radiation Oncology</b> <b>M189-26</b>	
Physicians and Physicists: \$350 Dosimetrists, Therapists and Allied Health Professionals: \$200 Trainees: \$150	<b>Total</b>

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Last four digits of your Social Security Number

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Name (First/Middle/Last)

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Degree

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Preferred Mailing Address

\_\_\_\_\_  
City / State / Zip

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Area Code Phone

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\_\_\_\_\_  
Area Code Fax

\_\_\_\_\_  
E-Mail Address

Check enclosed payable to: The Regents of the University of California

Charge:     MasterCard     Visa     Discover     American Express

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Card Number

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Expiration Mo/Yr

\_\_\_\_\_  
Signature

**Mail to:** Office of Continuing Medical Education, David Geffen School of Medicine at UCLA, MR-Guided Radiation Therapy, 10920 Wilshire Blvd., Suite 1060, Los Angeles, CA 90024-6512

**Fax:** (310) 794-2624 (must include charge card information and authorizing signature)

**Call:** (310) 794-2620

**Register online:** [www.cme.ucla.edu/courses/](http://www.cme.ucla.edu/courses/)

Office of Continuing Medical Education  
David Geffen School of Medicine at UCLA  
405 Hilgard Avenue MC29  
Los Angeles, CA 90095-6938

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