Radiology & Biomedical Imaging Lecture Series

GRAND ROUNDS

"Whole Body PET/MRI of Children with Cancer"

Heiki Daldrup-Link, MD, PhD

Professor, Radiology and Pediatrics
Director, Pediatric Molecular Imaging, Molecular Imaging Program
Stanford University – Palo Alto, CA

Thursday, April 8, 2021
12:30pm EST
WEBINAR LINK
https://zoom.us/j/92769464814
Passcode: 693329

Course Director: T. Rob Goodman, MBBCh, MBA, BMSc
Host: Mariam Aboian, MD

There is no corporate support for this activity
This course will fulfill the licensure requirement set forth by the State of Connecticut

The Yale School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

TARGET AUDIENCE
Physicians, Fellows, Residents and Medical Students

NEEDS ASSESSMENT
Since many solid tumors in children are evaluated with magnetic resonance imaging (MRI) and metastases are detected with 18F-FDG positron emission tomography (PET), integrated 18F-FDG PET/MR can be a time-efficient, convenient and safe approach for the diagnosis of cancer in children. 18F-FDG PET/MR can be used to assess primary tumors and the whole body in one imaging session, thereby avoiding repetitive anesthesia and significantly reducing the radiation exposure of pediatric patients compared to traditional 18F-FDG PET/CT scans. At Stanford, we have transitioned all 18F-FDG PET scans of children with cancer from integrated 18F-FDG PET/CT studies to 18F-FDG PET/MRI studies. By using radiation-free MRI instead of CT for anatomical co-registration of 18F-FDG radiotracer imaging data, we can obtain medical images for whole body staging with 80% reduced ionizing radiation exposure compared to standard medical imaging procedures. This presentation will outline strengths and limitations of the 18F-FDG PET/MRI technique, with particular attention to comparisons of 18F-FDG PET/MRI and diffusion-weighted MRI. Opportunities for artificial intelligence algorithms to improve the safety and speed of integrated PET/MRI scans will be also discussed.

LEARNING OBJECTIVES
At the conclusion of this activity, participants will be able to:
1. How to provide "one stop" local and whole body cancer staging in one hour or less.
2. Understanding synergies and complementary information provided by metabolic imaging with 18F-FDG PET and diffusion weighted MRI
3. Utilizing artificial intelligence algorithms to reduce radiotracer exposure and/or accelerate imaging times of PET/MRI scans

DESIGNATION STATEMENT
The Yale School of Medicine designates this live activity for 1 AMA PRA Category 1 Credit(s)™. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

FACULTY DISCLOSURES

Speaker: Heiki Daldrup-Link, MD, PhD – None

Course Director:
T. Rob Goodman, MBBCh, MBA, BMSc - None

It is the policy of Yale School of Medicine, Continuing Medical Education, to ensure balance, independence, objectivity and scientific rigor in all its educational programs. All faculty participating as speakers in these programs are required to disclose any relevant financial relationship(s) they (or spouse or partner) have with a commercial interest that benefits the individual in any financial amount that has occurred within the past 12 months; and the opportunity to affect the content of CME about the products or services of the commercial interests. The Center for Continuing Medical Education will ensure that any conflicts of interest are resolved before the educational activity occurs.