

# Introduction to Clinical Nuclear Medicine 2007/2008

**INSTRUCTOR:** J. Anthony Parker

Joint Program in Nuclear Medicine Faculty

**TEXTBOOK:** Handouts and Reading Assignments

**OBJECTIVES:** Rapid and intensive exposure to Nuclear Medicine with emphasis on clinical topics.

**TIME:** 8:00am - 9:00am

**LOCATION:** Facilities Throughout the JPNM

<p><b>Criteria for Successful Completion of this Course:</b></p>
--

>85% Attendance

**and**

>60% on Final Exam

	Loc	Staff	Topic	Reference
<b>July</b>				
	2		No Lecture: BWH Orientation	
	3		No Lecture: JPNM Orientation	
	4		July 4th Holiday	Declaration of Independence
	5 BWH	V. Gerbaudo	Brain Tumor Imaging (SPECT & PET) Hollenberg Conf Room Thorn Building, 3rd Floor	
	6 BIDMC	T. Parker	Lung Scintigraphy	
	9 BWH	S. Britz-Cunningham	Hepatobiliary Scintigraphy	
	10 CHB	T. Treves	Intro to Pediatric NM / On-call Cases	
	11 BWH	M. Di Carli	Introduction to Myocardial Perfusion Imaging (MPI)	<a href="#">Di Carli</a>
	12 BWH	V. Gerbaudo	FDG Biodistribution: Artifacts & Pitfalls I Hollenberg Conf Room Thorn Building, 3rd Floor	
	13 BWH	V. Gerbaudo	FDG Biodistribution: Artifacts & Pitfalls II Abrams Conference Room, ASB1:L1	

	16 BWH	S. Dorbala	Systematic Interpretation of MPI – Dexter Library	
	17 BWH	R. Powsner	GI Bleeding	
	18 BWH	S. Dorbala	ECG Interpretation I Dexter Library	
	19 CHB	T. Treves	BrainTumors and Epilepsy	
	20 BWH	S. Dorbala	ECG Interpretation II Dexter Library	
<hr/>				
<b>July</b>	23 BWH	M. Di Carli	Myocardial PET/CT Dexter Library	<a href="#">Di Carli</a>
	24 CHB	L. Drubach	Pediatric Gastrointestinal	
	25 BWH	S. Dorbala	High Risk Scan Features Dexter Library	
	26 CHB	F. Grant	Pediatric Genitourinary System	
	27 BIDMC	K. Donohoe	Lymphoscintigraphy	
<hr/>				
	30 DFCI	C. Sakellis	Cases	
	31 BWH	P. Gallagher	Introduction to the Radiopharmacy Abrams Conference Room, ASB1:L1	
<b>Aug</b>	1 BIDMC	D. Drum	Cardiac Markers Intro to Radiation Safety	
	2 CHB	W. Lorenzen	Seminar 1 Conference Room Enders Building Lobby	
	3 BWH	V. Gerbaudo	PET/CT in Lung Cancer Hollenberg Conf Room Thorn Building, 3rd Floor	
<hr/>				
	6 CHB	T. Treves	Pediatric Musculoskeletal	
	7 BWH	F. Fahey	Intro to Equipment	
	8 DFCI	D. Israel	PETfalls	
	9 CHB	F. Grant	Thyroid / Parathyroid Pathophysiology	
	10 BWH	S. Britz- Cunningham	Renal Scintigraphy	
<hr/>				
	13 BWH	K. Coyner	Bone Scintigraphy	
	14 BWH	R. Powsner	Thyroid Malignant & Rx	Braverman 1996 Robbins 2005
	15 BIDMC	D. Drum	Tumor Markers	
	16 CHB	T. Treves	Pediatric Oncology	
	17 BWH	B. Siewert	Intro to Abdominal CT	
<hr/>				
	20 BIDMC	T. Parker	Anti-CD20 Rx	
	21 CHB	F. Grant	Thyroid Benign	
	22 BIDMC	K. Donohoe	Gastric Emptying/GI Motility	
	23 WRVA	S. Nagel	Brain Death/CSF	

	24 BIDMC G. Kolodny	Cases
	27 DFCI C. Sakellis	Cases
	28 BIDMC N. Sheehy	Intro to Brain, Head & Neck, and Spine Imaging
	29 WRVA S. Nagel	Infection Imaging
	30 BIDMC J.Parker	Test
	31 BIDMC J. Parker	Test review
	4 BWH V. Gerbaudo	PET/CT in Gastrointestinal Malignancies Abrams Conference Room ASB1:L1
Sep	6 BIDMC K. Zukotynski	Intro to Chest Imaging and Anatomy
	13 BIDMC C. Johnston	Intro to Musculoskeletal

### References

- Boerman OC, Rennen H, Oyen WJG, Cortens FHM: Radiopharmaceuticals to image infection and inflammation. Sem Nucl Med 2001; 31:286-295.
- Braverman ed: The thyroid. 1996; Chapter 16: In-vivo Radionuclide Tests and Imaging, Chapter 51: Treatment of Thyrotoxicosis, Chapter 77: Carcinoma of Follicular Epithelium. Lippincott.
- Callahan RJ: The Compounding, Quality Control and Mechanisms of Localization of Radiopharmaceuticals in Fahey FH, Harkness BA: Basic Science of Nuclear Medicine. CD. Society of Nuclear Medicine, 2001.
- Delbeke D, Martin WH, Patton JA, Sandler MP ed.: Practical PET imaging: A teaching file. Springer-Verlag, New York, 2002.
- Donohoe KJ, Frey KA, Gerbaudo VH, Mariani G, Nagel JS, Shulkin B: [Procedure guideline for brain death scintigraphy](#). J Nucl Med 2003; 44: 846-851.
- Gibbons et al: ACC/AHA 2002 Guideline update for exercise testing. [http://www.acc.org/clinical/guidelines/exercise/exercise\\_clean.pdf](http://www.acc.org/clinical/guidelines/exercise/exercise_clean.pdf)
- Koh D-M, Cook GJR, Husband JE: New horizons in Oncologic Imaging. N Engl J Med 2003; 348:2487-2488.
- Kumar AM, Parker JA: Ventilation/Perfusion Scintigraphy. Emergency Med Clin N Am 2001; 19:957-973.
- Lardinois D, WderW, Hany TF, Kamel EM, Korom S, Seifert B, von Schulthess GK, Steinert HC: Staging of non-small-cell lung cancer with integrated positron-emission tomography and computed tomography. N Engl J Med 2003; 348:2500-2507.

*Continued on next page*

- Mariani G, Gipponi M, Moresco L, Villa G, Bartolomei M, Mazzarol G, Bagnara MC, Romanini A, Cafiero F, Paganelli G, Strauss HW: Radioguided sentinel lymph node biopsy in malignant cutaneous melanoma. J Nucl Med 2003; 43:811-827.
- Moore SC: Physical Characteristics of Nuclear Medicine Images. 1998; <http://brighamrad.harvard.edu/education/online/physics/MooreNM/PhysCharacLesson.html>

- Parker JA, Coleman RE, Siegel BA et al: Society of Nuclear Medicine Guideline for Lung Scintigraphy. <http://www.snm.org/>.
- Robins RJ, Schlumberger MJ: The evolving role of <sup>131</sup>I for the treatment of differentiated thyroid carcinoma. J Nucl Med 2005; 46:28S-37S.
- Taylor A, Schuster DM, Alazraki N: A clinician's guide to nuclear medicine. Society of Nuclear Medicine, 2000.
- Taylor et al: [SNM procedure guideline for diagnosis of renovascular hypertension](#). J Nucl Med 1998; 39:1297.
- Wijdicks EFM: The diagnosis of brain death. N Engl J Med 2001; 344:1215-1221.
- Wiseman GA, Kornmehl E, Leigh B et al: Radiation dosimetry results and safety correlations from <sup>90</sup>Y-ibritumomab tiuxetan radioimmunotherapy for relapsed or refractory non-Hodgkin's lymphoma: Combined data from 4 clinical trials. J Nucl Med 2003; 44:465-474.
- Witzig TE, Gordon LI, Cabanillas F et al: Randomized controlled trial of yttrium-90-labeled ibritumomab tiuxetan radioimmunotherapy versus rituximab immunotherapy for patients with relapsed or refractory low-grade, follicular, or transformed B-cell non-Hodgkin's lymphoma. J Clin Oncol 2002; 20:2453-2463.