



**Dr. Victor H. Gerbaudo** is the Director of the Nuclear Medicine and Molecular Imaging Program at the Brigham and Women's Hospital, Harvard Medical School, in Boston, Massachusetts, USA. Dr. Gerbaudo serves as Subchairman of the Clinical Oncology track of the Scientific Program Committee of the Society of Nuclear Medicine, and as the Vice-chairman of the Education and Research Committee of the New England Chapter of Society of Nuclear Medicine, USA. He is an active member of the Institute for Clinical PET of the Academy of Molecular Imaging, and of the International Mesothelioma Interest Group. Dr. Gerbaudo also serves as an ad hoc expert lecturer and consultant on the role PET/CT in Oncology for the International Atomic Energy Agency.

He is a clinical Nuclear Oncology scientist with more than 20 years of experience in the field. His clinical, teaching and research efforts focus on the in-vivo qualitative and quantitative monitoring of tumor biology, imaging, and response to therapy with PET/CT.

Dr. Gerbaudo's teaching integrates the application of basic concepts of tumor pathophysiology and molecular pathology to oncologic imaging and to the interpretation and integration of imaging results into management decisions. Topics of interest include molecular imaging of tumor cell proliferation, perfusion, apoptosis and glycolytic metabolism. He has delivered more than 100 oral presentations on the role of Positron Emission Tomography in Oncology around the world.

Dr. Gerbaudo's research focuses on the assessment and characterization of tumor invasion and metastasis with positron imaging of thoracic malignancies (i.e., malignant pleural mesothelioma, lung cancer), as well as esophageal cancer, brain and gastrointestinal tumors. His work in this area has expanded the use of clinical PET/CT for metabolically guided tumor biopsy and ablation, and for metabolic grading and staging of human tumors, as it relates to histological grade, molecular pathology, surgical stage and survival.

Dr. Gerbaudo serves as a scientific reviewer for numerous Radiology and Oncology journals. He has authored numerous original contributions, reviews, clinical communications and abstracts in the imaging and oncologic peer-reviewed literature, as follows:

**Selected Publications:**

*Original Articles*

Di Carli M, Czernin J; Hoh CK, **Gerbaudo VH**, Brunken RC, Huang SC, Phelps ME, Schelbert HR. Relation Among Stenosis Severity, Myocardial Blood Flow, and Flow Reserve in Patients with Coronary Artery Disease. *Circulation* 1995; 91:1944-1951

**Gerbaudo VH**, Sugarbaker D, Britz-Cunningham SH, Di Carli MF, Mauceri C, Treves ST: Assessment of Malignant Pleural Mesothelioma with F-18-FDG Dual-Head Gamma Camera Coincidence Imaging: Comparison with Histopathology. *J Nucl Med* 2002; 43: 1144-1149

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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

Schleipman RA, **Gerbaudo VH**, Castronovo Jr FP. Radiation Preparedness at an Academic Medical Center: Integrated Role of Health Physics, Emergency Medicine, and Nuclear Medicine. *J Nucl Med Tech* 2004; 32: 22-27

Wang H, **Gerbaudo VH**, Hobbs LD, Spector M. *In Vitro* Quantitation of Osteoblast-like Cell Mineralization on Tissue Culture Polystyrene and Ti-6Al-4V Alloy Disks by Tc-99m-MDP Labeling and Imaging. *Bone* 2005; 36:84-92

Parysow O, Mollerach AM, Jager V, San Roman J, Racioppi M, Eleta M, **Gerbaudo VH** Low-Dose Oral Propranolol Could Reduce Brown Adipose Tissue <sup>18</sup>F-FDG Uptake in Patients Undergoing PET Scans. *Clinical Nuclear Medicine* 2007; 32(5): 351-357

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**Gerbaudo VH** and Julius B. Anatomic-metabolic Characteristics of Atelectasis in PET/CT Imaging. *European Journal of Radiology* 2007; 64(3): 401- 405

Yamamuro M, **Gerbaudo VH**, Gill RR, Jacobson FL, Sugarbaker DJ, Hatabu H. Morphologic and functional imaging of malignant pleural mesothelioma. *Eur J Radiol* 2007; 64(3): 356-366

Zhu X, Park MA, **Gerbaudo VH**, Moore SC. Quantitative simultaneous In-111/Tc-99m planar imaging in a long-bone infection phantom. *Phys Med Biol* 2007; 52(24):7353-65

Mamede M, El Fakhri G, Abreu-e-Lima P, Gandler W, Nose V, **Gerbaudo VH**. Pre-operative Estimation of Esophageal Tumor Metabolic Length in FDG PET Images with Surgical Pathology Confirmation. *Annals of Nuclear Medicine* 2007; 21(10): 553-562

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Sang-June Park, Ionascu D, Killoran J, Mamede M, **Gerbaudo VH**, Chin L, Berbeco R. Evaluation of combined effects of target size, background activity, and respiratory motion on 3D and 4D PET/ CT images. *Phys Med Biol* 2008; 53: 3661–3679

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Killoran JH, Mamede M, Ionascu D, Park S, **Gerbaudo VH**, Berbeco R. Motion artifacts occurring at the lung/diaphragm interface using 4D-CT attenuation correction of 4D-PET scans. *Journal of Applied Clinical Medical Physics*, 2011 (in press)

**Gerbaudo VH**, Katz S, Nowak A, Francis R. Multimodality Imaging Review of Malignant Pleural Mesothelioma Diagnosis and Staging. *PET Clinics* 2011 (in press)

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*Peer-Reviewed Proceedings of Meetings*

Moore, SC, Park M, El Fakhri G, **Gerbaudo VH**, Zimmerman RE. A General-Spectral Method for Improved Quantitative SPECT Imaging of In-111. Proceedings of *IEEE*, 2004; Rome, Italy

**Gerbaudo VH**. Functional Anatomy of Tumor Aggressiveness in Lung Cancer and Malignant Pleural Mesothelioma. *Molecular Imaging and Biology* 2005; 7: 86

*Book Chapters*

Di Carli MF, **Gerbaudo VH**, Singh TP and Treves ST. Cardiopulmonary Studies in Pediatric Nuclear Medicine. In: Sandler MP, Coleman RE and Patton JA, editors. *Diagnostic Nuclear Medicine*, 4th ed. Lippincott, Williams and Wilkins; 2002

**Gerbaudo VH** and Jacobson Francine. PET/CT of Lung Cancer. In: Van Den Abbeele, A.D. & Donahue K. *Teaching Atlas of Nuclear Medicine*, 2<sup>nd</sup> ed. Thieme, (in press)

**Gerbaudo VH**. Lung and Pleural Malignancies. In: Gerbaudo VH, editor. *A Cased-Based Approach to PET/CT in Oncology*. Cambridge University Press (in press).

**Gerbaudo VH**, Gill Ritu. Esophageal Cancer. In: Gerbaudo VH, editor. *A Cased-Based Approach to PET/CT in Oncology*. Cambridge University Press (in press).

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*Books/Textbooks for the medical or scientific community*

**Gerbaudo VH**, editor. *A Cased-Based Approach to PET/CT in Oncology*. Cambridge University Press (in press).

Letters to the Editor

**Gerbaudo VH**, Britz-Cunningham S. Letter to the Editor. *Mol Imaging Biol*. 2009; 11 (6): 487

*Clinical Communications*

**Gerbaudo, VH**: Indicaciones Clínicas para el Diagnóstico con Imágenes Gamma y SPECT-Medicina Hoy: Actualización en Medicina Nuclear, Fundiamed 1994; (Pt 1): 1-6

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*Educational Material*

**Gerbaudo, V.H.**: Cardiovascular Nuclear Medicine, Agents and Methodology. An Educational Module. UCLA School of Medicine; 1994

Rajadhyaksha CD, Parker JA, Barbaras L, **Gerbaudo VH**. Normal and Benign Pathologic Findings in 18FDG-PET and PET/CT - An Interactive Web Based Image Atlas [<http://www.ipnm.org/petctatlas.html>] Harvard Medical School 2004

*Doctoral Thesis*

**Gerbaudo, V.H.** Radionuclide Myocardial Perfusion Imaging: An Analytical, Critical and Integrative Approach to the Study of Ischemic but Viable Myocardium (Doctoral Dissertation), Los Angeles, CA, 1992

*Peer-Reviewed Published Abstracts*

**Gerbaudo, VH**, Hoh, CK, Di Carli, M, Schelbert, H, et al: Single Tracer Method for the Evaluation of Liver Transplant Rejection: The Peak Net Hepatic Uptake Index. *Journal of Nuclear Medicine* 1994; 35: 167

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Britz-Cunningham SH, Millstine JW, **Gerbaudo VH**. Brain-Normalized Maximum SUV Ratios Categorize Lesions of Very Low, Intermediate or Very High Likelihood of Malignancy on PET-CT. *Journal of Nuclear Medicine* 2005; 46: 179

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Gill R, Jacobson F, **Gerbaudo VH**. FDG PET/CT for the Assessment of Lung Tumors Response to Radiofrequency Ablation. *Society of Thoracic Radiology* 2006

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Sang-June Park, Ionascu D, Killoran J, Mamede M, **Gerbaudo VH**, Chin L, Berbeco R. Automatic segmentation of static and moving target volumes using respiratory ungated (3D) and gated (4D) PET/CT images. *50<sup>th</sup> ASTRO's Annual Meeting*, September 21 – 25, 2008, Boston MA.