

# Stanford

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## George Segall

Professor of Radiology and, by courtesy, of Medicine (Cardiovascular)

### CLINICAL OFFICES

- **VA Palo Alto Health Care System Dept of Nuclear Medicine**

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### Bio

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### CLINICAL FOCUS

- Nuclear Medicine

### ACADEMIC APPOINTMENTS

- Professor - University Medical Line, Radiology
- Professor - Med Center Line, Radiology- Molecular Imaging Program at Stanford
- Professor - University Medical Line (By courtesy), Medicine - Cardiovascular Medicine
- Member, Cardiovascular Institute

### ADMINISTRATIVE APPOINTMENTS

- Chief, Nuclear Medicine Service, VA Palo Alto Health Care System, (1998- present)

### HONORS AND AWARDS

- Presidential Distinguished Educator Award, Society of Nuclear Medicine (2010)
- Distinguished Service Award, Western Regional Chapters Society of Nuclear Medicine (2006)
- Taplin Lecturer, Western Regional Chapters Society of Nuclear Medicine (2005)
- Commendation, Department of Veterans Affairs Palo Alto Health Care System (2004)

### PROFESSIONAL EDUCATION

- Board Certification: Nuclear Medicine, American Board of Nuclear Medicine (1986)
- Residency: Stanford University Nuclear Medicine Residency (1986) CA
- Board Certification: Internal Medicine, American Board of Internal Medicine (1982)
- Residency: Kaiser Permanente Los Angeles Internal Medicine Residency (1982) CA
- Internship: Kaiser Permanente Los Angeles Internal Medicine Residency (1980) CA
- Medical Education: University of Southern California Keck School of Medicine Registrar (1979) CA
- MD, University Southern California , Medicine (1979)

### COMMUNITY AND INTERNATIONAL WORK

- Board of Directors

- President

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Scintigraphic evaluation of coronary blood flow and myocardial function using single photon emission computed tomography (SPECT) and positron emission tomography (PET). Tumor imaging and characterization of pulmonary nodules with PET/CT.

### CLINICAL TRIALS

- Cervical Nodal Mets in Squamous Cell Carcinoma of H&N - MRI, FDG-PET, & Histopathologic Correlation, Not Recruiting
- Correlation of PET-CT Studies With Serum Protein Analysis, Not Recruiting

## Publications

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### PUBLICATIONS

- **Variable activation of the DNA damage response pathways in patients undergoing single-photon emission computed tomography myocardial perfusion imaging.** *Circulation. Cardiovascular imaging*  
Lee, W. H., Nguyen, P., Hu, S., Liang, G., Ong, S., Han, L., Sanchez-Freire, V., Lee, A. S., Vasanawala, M., Segall, G., Wu, J. C.  
2015; 8 (2)
- **Variable activation of the DNA damage response pathways in patients undergoing single-photon emission computed tomography myocardial perfusion imaging.** *Circulation. Cardiovascular imaging*  
Hee Lee, W., Nguyen, P., Hu, S., Liang, G., Ong, S., Han, L., Sanchez-Freire, V., Lee, A. S., Vasanawala, M., Segall, G., Wu, J. C.  
2015; 8 (2): e002851
- **PET/CT with sodium 18F-fluoride for management of patients with prostate cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*  
Segall, G. M.  
2014; 55 (4): 531-533
- **SNMMI/ABNM Joint Position Statement on Optimizing Training in Nuclear Medicine in the Era of Hybrid Imaging** *JOURNAL OF NUCLEAR MEDICINE*  
Delbeke, D., Royal, H. D., Frey, K. A., Graham, M. M., Segall, G. M.  
2012; 53 (9): 1490-1494
- **Status of and Trends in Nuclear Medicine in the United States** *JOURNAL OF NUCLEAR MEDICINE*  
Delbeke, D., Segall, G. M.  
2011; 52: 24S-28S
- **Therapy Response Evaluation with Positron Emission Tomography-Computed Tomography** *SEMINARS IN ULTRASOUND CT AND MRI*  
Segall, G. M.  
2010; 31 (6): 490-495
- **Session 3: Strategies to engage referring physicians and increase utilization of clinical molecular imaging** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M.  
2008; 49 (6): 52N-53N
- **A new paradigm to increase utilization of PET/CT** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M.  
2008; 49 (6): 53N-56N
- **A comparison of the diagnostic accuracy of F-18-FDG PET and CT in the characterization of solitary pulmonary nodules** *JOURNAL OF NUCLEAR MEDICINE*  
Fletcher, J. W., Kymes, S. M., Gould, M., Alazraki, N., Coleman, R. E., Lowe, V. J., Marn, C., Segall, G., Thet, L. A., Lee, K.  
2008; 49 (2): 179-185
- **Concurrent metabolic and osseous metastatic disease on a Tc99m-MDP bone scan** *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*

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- Mitra, E., Segall, G.  
2007; 34 (12): 2150-2150
- **A case of three synchronous primary tumors demonstrated by F-18FDG PET** *CLINICAL NUCLEAR MEDICINE*  
Mitra, E., Vasanawala, M., Niederkohr, R., Rodriguez, C., Segall, G.  
2007; 32 (8): 666-667
  - **F-18 FDG PET visualization of urinary leak after nephrostomy tube removal** *CLINICAL NUCLEAR MEDICINE*  
Iagaru, A., Gamie, S., Segall, G.  
2007; 32 (2): 168-169
  - **F-18FDG PET imaging of urinary bladder oat cell carcinoma with widespread osseous metastases** *CLINICAL NUCLEAR MEDICINE*  
Iagaru, A., Gamie, S., Segall, G.  
2006; 31 (8): 476-478
  - **F-18FDG PET evaluation of bronchial plasmacytoma with CT and MRI correlation** *CLINICAL NUCLEAR MEDICINE*  
Iagaru, A., Mari, C., Segall, G.  
2006; 31 (5): 279-280
  - **18-fluorodeoxyglucose positron emission tomography has limited sensitivity for colonic adenoma and early stage colon cancer** *Digestive Disease Week Meeting/105th Annual Meeting of the American-Gastroenterological-Association*  
Friedland, S., Soetikno, R., Carlisle, M., Taur, A., Kaltenbach, T., Segall, G.  
MOSBY-ELSEVIER.2005: 395-400
  - **Oral administration of F-18FDG to evaluate a single pulmonary nodule by positron emission tomography in a patient with poor intravenous access** *CLINICAL NUCLEAR MEDICINE*  
Franc, B., Carlisle, M. R., Segall, G.  
2003; 28 (7): 541-544
  - **Fluorodeoxyglucose positron emission tomography studies in the diagnosis and staging of transitional cell carcinoma** *International Bladder Symposium*  
Liu, I. J., Segall, G. M., Nino-Murcia, M., Terris, M. K.  
KLUWER ACADEMIC/PLENUM PUBL.2003: 129-142
  - **Positron emission tomography is superior to computed tomography for metastatic detection in melanoma patients** *12th Annual International PET Conference*  
Swetter, S. M., Carroll, L. A., Johnson, D. L., Segall, G. A.  
SPRINGER.2002: 646-53
  - **Positron emission tomography of the thyroid, with an emphasis on thyroid cancer** *NUCLEAR MEDICINE COMMUNICATIONS*  
McDougall, I. R., Davidson, J., Segall, G. M.  
2001; 22 (5): 485-492
  - **FDG PET imaging in patients with lymphoma: A clinical perspective - Invited commentary** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M.  
2001; 42 (4): 609-610
  - **Fluorodeoxyglucose positron emission tomography studies in diagnosis and staging of clinically organ-confined prostate cancer** *UROLOGY*  
Liu, I. J., Zafar, M. B., Lai, Y. H., Segall, G. M., Terris, M. K.  
2001; 57 (1): 108-111
  - **PET in differentiation of recurrent brain tumor from radiation injury** *JOURNAL OF NUCLEAR MEDICINE*  
Langleben, D. D., Segall, G. M.  
2000; 41 (11): 1861-1867
  - **9:45-10:00. Positron Emission Tomography (PET) is Superior to Computerized Tomography (CT) for Metastatic Staging in Melanoma Patients.** *Clinical positron imaging : official journal of the Institute for Clinical P.E.T*  
Swetter, Carroll, Johnson, SEGALL  
2000; 3 (4): 154-?
  - **Comparison of FDG-PET and Bone Scans for Detecting Skeletal Metastases in Patients with Non-small Cell Lung Cancer.** *Clinical positron imaging : official journal of the Institute for Clinical P.E.T*
-

- Durski, J. M., Srinivas, S. n., Segall, G. n.  
2000; 3 (3): 97-105
- **The effect of fluorine-18 fluorodeoxyglucose positron emission tomography on the management of cutaneous malignant melanoma** *CLINICAL NUCLEAR MEDICINE*  
Jadvar, H., Johnson, D. L., Segall, G. M.  
2000; 25 (1): 48-51
  - **Effect of atropine and sincalide on the intestinal uptake of F-18 fluorodeoxyglucose** *CLINICAL NUCLEAR MEDICINE*  
Jadvar, H., Schambye, R. B., Segall, G. M.  
1999; 24 (12): 965-967
  - **Physiologic Source of Intestinal FDG Uptake. Effect of Atropine and Sincalide.** *Clinical positron imaging : official journal of the Institute for Clinical P.E.T*  
Jadvar, H., Schambye, R. B., Segall, G. M.  
1999; 2 (6): 318-?
  - **A mathematical model for the distribution of fluorodeoxyglucose in humans** *JOURNAL OF NUCLEAR MEDICINE*  
Hays, M. T., Segall, G. M.  
1999; 40 (8): 1358-1366
  - **SPECT and PET in the evaluation of coronary artery disease** *83rd Scientific Assembly and Annual Meeting of the Radiological-Society-of-North-America*  
Jadvar, H., Strauss, H. W., Segall, G. M.  
RADIOLOGICAL SOC NORTH AMERICA.1999: 915-26
  - **Uses and limitations of FDG positron emission tomography in patients with head and neck cancer** *Meeting of the Western Section of the American-Laryngological-Rhinological-and-Otological-Society*  
Hanasono, M. M., Kunda, L. D., Segall, G. M., Ku, G. H., Terris, D. J.  
JOHN WILEY & SONS INC.1999: 880-85
  - **Evaluation of suspected recurrent papillary thyroid carcinoma with [F-18]fluorodeoxyglucose positron emission tomography** *NUCLEAR MEDICINE COMMUNICATIONS*  
Jadvar, H., McDougall, I. R., Segall, G. M.  
1998; 19 (6): 547-554
  - **Hot water swallows improve symptoms and accelerate esophageal clearance in esophageal motility disorders** *JOURNAL OF CLINICAL GASTROENTEROLOGY*  
Triadafilopoulos, G., Tsang, H. P., Segall, G. M.  
1998; 26 (4): 239-244
  - **Effect of radionuclide renograms on treatment of patients with spinal cord injuries** *AMERICAN JOURNAL OF ROENTGENOLOGY*  
PHILLIPS, J. R., Jadvar, H., Sullivan, G., Lin, V. W., Segall, G. M.  
1997; 169 (4): 1045-1047
  - **False-negative fluorine-18-FDG PET in metastatic carcinoid** *JOURNAL OF NUCLEAR MEDICINE*  
Jadvar, H., Segall, G. M.  
1997; 38 (9): 1382-1383
  - **Fast acquisition of myocardial SPECT images with Tc-99m sestamibi for the diagnosis of coronary artery disease** *JOURNAL OF NUCLEAR CARDIOLOGY*  
Segall, G. M., Stepp, C., Kadkade, P. P., Dae, M. W., Botvinick, E. H.  
1997; 4 (5): 358-363
  - **Psychological stress and myocardial perfusion in coronary disease patients and healthy controls** *JOURNAL OF PSYCHOSOMATIC RESEARCH*  
BENIGHT, C. C., Segall, G. M., Ford, M. E., Goetsch, V. L., Hays, M. T., Taylor, C. B.  
1997; 42 (2): 137-144
  - **Low probability lung scan in a patient at high risk for pulmonary embolism** *JOURNAL OF NUCLEAR MEDICINE*  
Kwok, C. G., SKIBO, L. K., Segall, G. M.  
1996; 37 (1): 165-170
  - **VARIABILITY OF NORMAL CORONARY ANATOMY - IMPLICATIONS FOR THE INTERPRETATION OF THALLIUM-SPECT MYOCARDIAL PERFUSION IMAGES IN SINGLE-VESSEL DISEASE** *JOURNAL OF NUCLEAR MEDICINE*

- Segall, G. M., Atwood, J. E., Botvinick, E. H., Dae, M. W., Lucas, J. R.  
1995; 36 (6): 944-951
- **IN-VITRO EVALUATION OF WHITE BLOOD-CELL LABELING WITH 99TCM RADIOPHARMACEUTICALS** *NUCLEAR MEDICINE COMMUNICATIONS*  
Segall, G. M., Lang, E. V., CHAOVAPONG, W.  
1994; 15 (10): 845-849
  - **ACCELERATION OF WHITE BLOOD-CELL IMAGING BY ADJUNCT USE OF RADIOGRAPHIC CONTRAST-MEDIA** *1993 Meeting of Contrast Media Research (CMR 93)*  
Lang, E. V., Lang, J. H., Segall, G. M.  
LIPPINCOTT WILLIAMS & WILKINS.1994: S36-S39
  - **REST EXERCISE THALLIUM MYOCARDIAL PERFUSION IMAGING - A NEW AND RAPID TECHNIQUE TO EVALUATE CORONARY-ARTERY DISEASE** *NUCLEAR MEDICINE COMMUNICATIONS*  
Segall, G. M., ZIPKIN, R. E.  
1993; 14 (6): 465-470
  - **QUALITY ASSURANCE OF WHITE BLOOD-CELL LABELING WITH A TEST BASED ON ADHERENCE** *JOURNAL OF NUCLEAR MEDICINE*  
Lang, E. V., Nigh, E., EUBANKS, R. S., Lang, J. H., Segall, G. M.  
1993; 34 (2): 345-348
  - **FUNCTIONAL IMAGING OF PERIPHERAL VASCULAR-DISEASE - A COMPARISON BETWEEN EXERCISE WHOLE-BODY THALLIUM PERFUSION IMAGING AND CONTRAST ARTERIOGRAPHY** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M., Lang, E. V., LENNON, S. E., STEVICK, C. D.  
1992; 33 (10): 1797-1800
  - **EFFECTS OF ANGER ON LEFT-VENTRICULAR EJECTION FRACTION IN CORONARY-ARTERY DISEASE** *AMERICAN JOURNAL OF CARDIOLOGY*  
Ironson, G., Taylor, C. B., BOLTWOOD, M., BARTZOKIS, T., Dennis, C., Chesney, M., Spitzer, S., Segall, G. M.  
1992; 70 (3): 281-285
  - **EFFECT OF FLOW-RATE ON ADHERENCE OF UNLABELED AND IN-111 OXINE-LABELED LEUKOCYTES** *INVESTIGATIVE RADIOLOGY*  
Lang, E. V., Lang, J. H., Segall, G. M.  
1992; 27 (1): 50-54
  - **SAFETY OF DIPYRIDAMOLE-THALLIUM IMAGING IN HIGH-RISK PATIENTS WITH KNOWN OR SUSPECTED CORONARY-ARTERY DISEASE** *JOURNAL OF NUCLEAR MEDICINE*  
PERPER, E. J., Segall, G. M.  
1991; 32 (11): 2107-2114
  - **EXERCISE WHOLE-BODY THALLIUM SCINTIGRAPHY IN THE DIAGNOSIS AND EVALUATION OF OCCLUSIVE ARTERIAL-DISEASE IN THE LEGS** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M., LENNON, S. E., STEVICK, C. D.  
1990; 31 (9): 1443-1449
  - **KINETICS OF LEUKOCYTE SEQUESTRATION IN THE LUNGS OF ACUTELY SEPTIC PRIMATES - A STUDY USING IN-111 LABELED AUTOLOGOUS LEUKOCYTES** *JOURNAL OF SURGICAL RESEARCH*  
HANGEN, D. H., Segall, G. M., HARNEY, E. W., Stevens, J. H., McDougall, I. R., Raffin, T. A.  
1990; 48 (3): 196-203
  - **SEQUENTIAL ASSESSMENT OF PULMONARY EPITHELIAL DIETHYLENE TRIAMINE PENTA-ACETATE CLEARANCE AND INTRAPULMONARY TRANSFERRIN ACCUMULATION DURING ESCHERICHIA-COLI PERITONITIS** *AMERICAN REVIEW OF RESPIRATORY DISEASE*  
Ishizaka, A., Stephens, K. E., Segall, G. M., HATHERILL, J. R., McDougall, I. R., Wu, Z. H., Raffin, T. A.  
1990; 141 (3): 631-639
  - **PRONE VERSUS SUPINE THALLIUM MYOCARDIAL SPECT - A METHOD TO DECREASE ARTIFACTUAL INFERIOR WALL DEFECTS** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M., Davis, M. J.  
1989; 30 (4): 548-555

- **THE ROLE OF BONE-SCAN AND RADIOGRAPHY IN THE DIAGNOSTIC EVALUATION OF SUSPECTED PEDAL OSTEOMYELITIS** *CLINICAL NUCLEAR MEDICINE*  
Segall, G. M., NINOMURCIA, M., Jacobs, T., Chang, K.  
1989; 14 (4): 255-260
- **VARIABILITY OF SERUM DRUG LEVEL FOLLOWING A SINGLE ORAL DOSE OF DIPYRIDAMOLE** *JOURNAL OF NUCLEAR MEDICINE*  
Segall, G. M., Davis, M. J.  
1988; 29 (10): 1662-1667
- **Noninvasive detection of human cardiac transplant rejection with indium-111 antimyosin (Fab) imaging.** *Circulation*  
FRIST, W., Yasuda, T., Segall, G., Khaw, B. A., Strauss, H. W., Gold, H., STINSON, E., Oyer, P., Baldwin, J., Billingham, M.  
1987; 76 (5): V81-5
- **NONINVASIVE DETECTION OF HUMAN CARDIAC TRANSPLANT REJECTION WITH IN-111 ANTIMYOSIN (FAB) IMAGING** *CIRCULATION*  
FRIST, W., Yasuda, T., Segall, G., Khaw, B. A., Strauss, H. W., Gold, H., STINSON, E., Oyer, P., Baldwin, J., Billingham, M., McDougall, I. R., Haber, E.  
1987; 76 (5): 81-85
- **ADHERENCE OF RADIOPHARMACEUTICALS AND LABELED CELLS TO INTRAVENOUS TUBING** *CLINICAL NUCLEAR MEDICINE*  
Segall, G. M., Gurevich, N., McDougall, I. R.  
1986; 11 (12): 830-833
- **DIAGNOSTIC-VALUE OF LUNG UPTAKE OF IN-111 OXINE-LABELED WHITE BLOOD-CELLS** *AMERICAN JOURNAL OF ROENTGENOLOGY*  
Segall, G. M., McDougall, I. R.  
1986; 147 (3): 601-606
- **NONVISUALIZATION OF THE LIVER BY IN-111 OXINE LABELED LEUKOCYTES IN ALCOHOLIC LIVER-DISEASE** *CLINICAL NUCLEAR MEDICINE*  
Segall, G. M., Goodwin, D. A.  
1986; 11 (2): 79-81