

CURRICULUM VITAE

THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Martin G. Pomper



DEMOGRAPHIC INFORMATION

Current Academic Appointments

Director, Division of Nuclear Medicine and Molecular Imaging	2015-
William R. Brody Professor of Radiology (inaugural)	2011-
Director, Johns Hopkins Center for Translational Molecular Imaging	2010-
Professor, <i>Johns Hopkins University School of Medicine</i> :	
Russell H. Morgan Department of Radiology and Radiological Science	2007-
Department of Pharmacology and Molecular Sciences	2007-
Sidney Kimmel Comprehensive Cancer Center	2007-
Department of Psychiatry and Behavioral Sciences	2007-
Department of Radiation Oncology and Molecular Radiation Sciences	2013-
Department of Molecular and Comparative Pathobiology	2013-
 <i>Johns Hopkins Bloomberg School of Public Health</i> :	
Department of Environmental Health Sciences	2007-
 <i>Johns Hopkins University Whiting School of Engineering</i> :	
Department of Chemical and Biomolecular Engineering	2015-
Department of Materials Science and Engineering	2015-
Associate Director, Johns Hopkins <i>in Vivo</i> Cellular and Molecular Imaging Center	2000-

Personal Data

Johns Hopkins Medical School	Phone: 410-955-2789
Division of Nuclear Medicine and Molecular Imaging	Fax: 443-817-0990
Koch Cancer Research Building 2	Email: mpomper@jhmi.edu
1550 Orleans Street	
Baltimore, Maryland 21287	

Web

http://www.hopkinsmedicine.org/pharmacology_molecular_sciences/faculty/bios/pomper.html

Education and Training

Niles Township North High School, Skokie, Illinois (valedictorian) 1975-79

Undergraduate and graduate: University of Illinois at Urbana-Champaign

B.S. Biochemistry (with concentration in chemistry) 1979-82

Ph.D. Chemistry (organic) with John A. Katzenellenbogen
Thesis: *Fluorine-18 Labeled Estrogens, Progestins and Corticosteroids
for Receptor-Based Imaging of Breast Tumors and Target Areas of
the Brain* 1982-89

M.D. Medicine (Medical Scholars Program) 1982-90

Postgraduate medical training: Johns Hopkins University

Intern (Osler Medical Service) 1990-91

Resident (Diagnostic Radiology) 1991-95

Resident (Nuclear Medicine) 1991-95

Fellow (Neuroradiology) 1995-96

Professional Experience

Product Development Technician, Stepan Chemical Co., Northfield, Illinois Summer, 1980

Analytical chemistry undergraduate research (with Kelsey D. Cook), University of
Illinois at Urbana-Champaign Spring, 1981

Research and Development Technician, Stepan Chemical Co., Northfield, Illinois Summer, 1981

Research and Development Technician, Stepan Chemical Co., Northfield, Illinois Summer, 1982

Part Time Staff, Department of Nuclear Medicine, Maryland General Hospital 1995-96

Johns Hopkins University School of Medicine:

Instructor, Russell H. Morgan Department of Radiology and Radiological
Science 1995-96

Assistant Professor, Russell H. Morgan Department of Radiology and
Radiological Science 1996-2001

Associate Professor, Russell H. Morgan Department of Radiology and
Radiological Science 2002-2007

Associate Professor, Department of Pharmacology and Molecular Sciences 2003-2007

Associate Professor, Sidney Kimmel Comprehensive Cancer Center 2003-2007

Johns Hopkins Bloomberg School of Public Health:

Associate Professor, Department of Environmental Health Sciences 2006-2007

Co-Director, Johns Hopkins PET Center 2009-2014

Co-Director, Johns Hopkins Center of Cancer Nanotechnology Excellence 2010-2015

Co-Founder, Cancer Targeting Systems, Inc. 2010

Co-Founder, Theraly Pharmaceuticals, Inc. 2013

Board Member, Cancer Targeting Systems, Inc. 2014

Director, Johns Hopkins Small Animal Imaging Resource Program 2001-2011

RESEARCH ACTIVITIES

For the past 20 years my research group has been dedicated to the development of new molecular imaging agents, with a focus on targets germane to cancer and central nervous system disease. We consist of 42 individuals, including junior faculty, trainees (graduate students and postdoctoral research fellows), technicians, visiting scholars and administrative staff. Projects involve chemical and radiochemical synthesis, biological assay development, and quantitative pre-clinical and clinical imaging.

Publications: Peer-reviewed Scientific Articles

- [1] Carlson KE, Brandes SJ, **Pomper MG**, Katzenellenbogen JA. Uptake of three [³H]proggestins by target tissues in vivo: implications for the design of diagnostic imaging agents. *Nucl Med Biol* 1988; 15:403-408.
- [2] **Pomper MG**, Katzenellenbogen JA, Welch MJ, Brodack JW, Mathias CJ. 21-[¹⁸F]Fluoro-16 α -ethyl-19-norprogesterone: synthesis and target tissue selective uptake of a progesterin receptor based radiotracer for positron emission tomography. *J Med Chem* 1988; 31:1360-1363.
- [3] **Pomper MG**, Pinney KG, Carlson KE, VanBrocklin HF, Mathias CJ, Welch MJ, Katzenellenbogen JA. Target tissue uptake selectivity of three fluorine-substituted proggestins: potential imaging agents for receptor-positive breast tumors. *Nucl Med Biol* 1990; 17:309-319.
- [4] **Pomper MG**, VanBrocklin HF, Thieme AM, Thomas RD, Kiesewetter DO, Carlson KE, Mathias CJ, Welch MJ, Katzenellenbogen JA. 11 β -Methoxy-, 11 β -ethyl-, and 17 α -ethynyl-substituted 16 α fluoroestradiols: receptor based imaging agents with enhanced uptake efficiency and selectivity. *J Med Chem* 1990; 33:3143-3155.
- [5] Dehdashti F, Mcguire AH, VanBrocklin HF, Siegel BA, Andriole DP, **Pomper MG**, Katzenellenbogen JA, Welch MJ. Assessment of 21-[¹⁸F]fluoro-16 α -ethyl-19-norprogesterone as a positron-emitting radiopharmaceutical for the detection of progesterin receptors in human breast carcinomas. *J Nucl Med* 1991; 32:1532-1537.
- [6] VanBrocklin HF, **Pomper MG**, Carlson KE, Welch MJ, Katzenellenbogen JA. Preparation and evaluation of 17-ethynyl-substituted 16 α -[¹⁸F]fluoroestradiols: selective receptor-based PET imaging agents. *Nucl Med Biol* 1992; 19:363-374
- [7] **Pomper MG**, Kochanny MJ, Thieme AM, Carlson KE, VanBrocklin HF, Mathias CJ, Welch MJ, Katzenellenbogen JA. Fluorine-substituted corticosteroids: synthesis and evaluation as potential receptor-based imaging agents for positron emission tomography of the brain. *Nucl Med Biol* 1992; 19:461-480.
- [8] Stone JH, **Pomper MG**, Roubenoff R, Miller TJ, Hellmann DB. Sensitivities of noninvasive tests for central nervous system vasculitis: a comparison of lumbar puncture, computed tomography, and magnetic resonance imaging. *J Rheumatol* 1994; 21:1277-1282
- [9] Stone JH, **Pomper MG**, Hellmann DB. Histoplasmosis mimicking vasculitis of the central nervous system. *J Rheumatol* 1998; 25:1644-1648
- [10] **Pomper MG**, Miller TJ, Stone JH, Tidmore WC, Hellmann DB. Central nervous system vasculitis (CNSV): MR imaging and correlation with angiography. *AJNR Am J Neuroradiol* 1999; 20:75-85.

- [11] Constantinides CD, Gillen JS, Boada FE, **Pomper MG**, Bottomley PA. Sodium MRI and quantification in human skeletal muscle: potential applications in exercise and disease. *Radiology* 2000; 216:559-568.
- [12] **Pomper MG**, Musachio JL, Scheffel U, Macdonald JE, McCarthy DJ, Reif DW, Villemagne V, Yokoi F, Dannals RF, Wong DF. Radiolabeled neuronal nitric oxide synthase inhibitors: synthesis, *in vivo* evaluation and primate PET studies. *J Nucl Med* 2000; 41:1417-1425.
- [13] Port JD, **Pomper MG**. Quantification and minimization of magnetic susceptibility artifacts on GRE images. *J Com Assist Tomogr* 2000; 24:954-964.
- [14] **Pomper MG**, Passe TJ, Burger PC, Scheithauer BW, Brat DJ. Chordoid glioma: a unique neoplasm of the hypothalamus/anterior third ventricle. *AJNR Am J Neuroradiology* 2001; 22:464-469.
- [15] Regan M, Haque UJ, **Pomper MG**, Pardo CA, Stone JH. Central nervous system vasculitis as a complication of refractory dermatomyositis. *J Rheumatol* 2001; 28:207-211.
- [16] Solomon SB, Dogan AS, Nicol TL, **Pomper MG**. PET in the detection and management of sarcomatous transformation in neurofibromatosis. *Clin Nucl Med* 2001; 26:525-528.
- [17] Wasserman BA, Stone JH, Hellmann DB, **Pomper MG**. Reliability of normal MR imaging for precluding the diagnosis of central nervous system vasculitis. *AJR American Journal of Roentgenology* 2001; 177:455-459.
- [18] Tihan T, Burger PC, **Pomper MG**, Sanchez O, Ramzan M, Eberhart CG, Hansen C, Smith TW. Subacute diencephalic angioencephalopathy: biopsy diagnosis and radiological features of a rare entity. *Clin Neurol Neurosurg* 2001; 103:160-7.
- [19] Port JD, Brat DJ, Burger PC, **Pomper MG**. Astroblastoma: radiologic-pathologic correlation and distinction from ependymoma. *AJNR Am J Neuroradiol* 2002; 23:243-7.
- [20] Mori S, Frederiksen K, Stieltjes B, Kraut MA, van Zijl PCM, Brem H, **Pomper MG**. Abnormally increased water diffusion anisotropy at the brain tumor-parenchyma interface. *Ann Neurol* 2002; 51:377-80.
- [21] Yaghami R, Kashani AH, Geraghty MT, Okoh J, **Pomper M**, Tangerman A, Wagner C, Stabler SP, Allen RH, Mudd SH, Braverman N. Acute cerebral edema in a patient with cystathionine beta-synthase (CBS) deficiency. *Am J Med Genet* 2002; 108:57-63.
- [22] **Pomper MG**, Constantinides CD, Barker PB, Bizzi A, Dogan SA, Yokoi F, McArthur JC, Wong DF. Quantitative MR spectroscopic imaging of brain lesions in patients with AIDS: correlation with [¹¹C-methyl] thymidine PET and thallium-201 SPECT. *Acad Radiol* 2002; 9:398-409.
- [23] **Pomper MG**, Musachio JL, Zhang J, Zhou Y, Scheffel U, Hilton J, Maini A, Dannals RF, Wong DF, Kozikowski AP. ¹¹C-MCG: Synthesis, uptake selectivity and primate PET of a probe for glutamate carboxypeptidase II (NAALADase). *Mol Imaging* 2002; 1:96-101.
- [24] Ravert HT, Kleckner RW, Collins J, Mathews WB, **Pomper MG**, Wahl R, Dannals RF. Radiosynthesis of [¹¹C]paclitaxel. *J Labeled Compds Radiopharm* 2002; 45:471-477
- [25] Melhem ER, Mori S, Mukundan G, Kraut MA, **Pomper MG**, van Zijl PCM. Diffusion tensor imaging of the brain and white matter tractography. *AJR Am J Roentgenol* 2002; 178:3-16.
- [26] Hammoud D, Belden CJ, Ho AC, Dal Pan GJ, Herskovits EH, Hilt DC, Brem H, **Pomper MG**. The surgical bed after BCNU-polymer wafer placement for recurrent glioma: serial assessment with CT and MR. *AJR Am J Roentgenol* 2003; 180:1469-1475.
- [27] Lucey BP, Tihan T, **Pomper MG**, Olivi A, Laterra J. Spinal meningioma causing diffuse leptomeningeal enhancement. *Neurology* 2003; 28:350-1.

- [28] Ouwerkerk R, Bleich KB, Gillen JS, **Pomper MG**, Bottomley AP. Tissue sodium concentration in human brain tumors as measured with ^{23}Na MR imaging. *Radiology* 2003; 227:529-537.
- [29] Mudd SH, Braverman N, **Pomper M**, Tezcan K, Kronick J, Jayakar P, Garganta C, Ampola MG, Levy HL, McCandless SE, Wiltse H, Stabler SP, Allen RH, Wagner C, Borschel MW. Infantile hypermethioninemia and hyperhomocysteinemia due to high methionine intake: a diagnostic trap. *Mol Gen Metab* 2003; 79:6-16.
- [30] Bettgowda C, Dang LH, Abrams R, Huso DL, Dillehay L, Cheong I, Agrawal N, Borzillary S, McCaffery JM, Watson EL, Lin K-S, Bunz F, Baidoo K, **Pomper MG**, Kinzler KW, Vogelstein B, Zhou S. Overcoming the hypoxic barrier to radiation therapy with anaerobic bacteria. *Proc Natl Acad Sci USA* 2004; 100:15083-8.
- [31] Nagae-Poetscher LM, McMahon M, Braverman N, Lawrie WT, Fatemi A, Degaonkar M, Horská A, **Pomper MG**, Chacko VP, Barker PB. Metabolites in ventricular CSF detected by proton MR spectroscopic imaging. *J Magn Reson Imaging* 2004; 20:496-500.
- [32] Agrawal N, Bettgowda C, Cheong I, Geschwind J-F, Drake CG, Hipkiss EL, Tatsumi M, Dang LH, Diaz L, **Pomper M**, Abusedera M, Wahl RL, Kinzler KW, Zhou S, Huso DL, Vogelstein B. Bacteriolytic therapy can generate a potent immune response against experimental tumors. *Proc Natl Acad Sci USA* 2004; 101:15171-15177.
- [33] Ko YH, Smith BL, Wang Y, **Pomper MG**, Rini DA, Torbenson MS, Hullihen J, Pederson PL. Advanced cancers: eradication in all cases using 3-bromopyruvate therapy to deplete ATP. *Biochem Biophys Res Comm* 2004; 324:269-275.
- [34] Lin K-S, Luu A, Baidoo KE, Hashemzadeh-Gargari H, Chen M-K, Pili R, **Pomper MG**, Carducci M, Wagner HN. A new high affinity technetium analogue of bombesin containing DTPA as a pharmacokinetic modifier. *Bioconj Chem* 2004; 15:1416-1423.
- [35] Bettgowda C, Foss CA, Cheong I, Wang Y, Diaz L, Agrawal N, Fox J, Dick J, Dang LH, Zhou S, Kinzler K, Vogelstein B, **Pomper MG**. Imaging bacterial infection in live animals with radiolabeled FIAU. *Proc Natl Acad Sci USA* 2005; 102:1145-51150.
- [36] **Pomper MG**, Phillips E, Fan H, McCarthy DJ, Keith RA, Gordon JC, Dannals RF, Musachio JL. Synthesis and biodistribution of radiolabeled $\alpha 7$ nicotinic acetylcholine receptor ligands. *J Nucl Med* 2005; 46:326-334.
- [37] Lin K-S, Luu A, Baidoo KE, Hashemzadeh-Gargari H, Chen M-K, Pili R, **Pomper MG**, Carducci M, Wagner HN. A new high affinity technetium-bombesin analogue with low abdominal accumulation. *Bioconj Chem* 2005; 16:43-50.
- [38] Dubey P, Fatemi AS, Barker PB, Troeger M, Zackowski K, Bastian A, **Pomper M**, Degaonkar M, Moser HW, Raymond GV. Spectroscopic Evidence of Neuroaxonal Pathology in the Brain of Adrenomyeloneuropathy Patients with Normal Conventional MRI. *Neurology* 2005; 64:304-310.
- [39] Sacktor N, Skolasky RL, Zhong K, Mao X, Selnes O, **Pomper MG**, Ernst T, Chang L, Shungu DC, Marder K, Shibata D, Schifitto G, Bobo LD, Barker PB. A comparison of two magnetic resonance spectroscopy techniques in individuals with HIV-associated cognitive impairment: results of a multicenter trial. *J Magn Reson Imaging* 2005; 21:325-333.
- [40] Foss CA, Mease RC, Fan H, Wang Y, Ravert HT, Dannals RF, Olszewski RT, Heston WD, Kozikowski AP, **Pomper MG**. Radiolabeled small molecule ligands for prostate-specific membrane antigen: in vivo imaging in experimental models of prostate cancer. *Clin Cancer Res* 2005; 11:4022-4028.
- [41] Lu H, Nagae-Poetscher LM, Golay X, Lin D, **Pomper M**, van Zijl PCM. Routine clinical brain MRI sequences for use at 3.0 tesla. *J Magn Reson Imaging* 2005; 22:13-22.

- [42] Guilarte TR, McGlothan JL, Foss CA, Zhou Z, Heston WD, Kozikowski AP, **Pomper MG**. Glutamate Carboxypeptidase II Levels in Rodent Brain using [¹²⁵I]DCIT Quantitative Autoradiography. *Neurosci Lett* 2005; 387:141-144.
- [43] Degaonkar MN, **Pomper MG**, Barker PB. Quantitative proton MR spectroscopic imaging: regional variations in the corpus callosum and cortical gray matter. *J Magn Reson Imaging* 2005; 22:175-179.
- [44] Mathews WB, Foss CA, Stoermer D, Ravert HT, Dannals RF, Henke BR, **Pomper MG**. Synthesis and biodistribution of [¹¹C]GW7845, a positron-emitting agonist for PPAR γ . *J Nucl Med* 2005; 46:1719-1726.
- [45] Hammoud DA, Endres CA, Chander AR, Guilarte TR, Wong DF, Sacktor NC, McArthur JC, **Pomper MG**. Imaging glial cell activation with [¹¹C]R-PK11195 in patients with AIDS. *J Neurovirol* 2005; 11:346-355.
- [46] Diaz LA, Cheong I, Foss CA, Zhang X, Peters BA, Agrawal N, Bettegowda C, Karim B, Liu G, Khan K, Huang X, Kohli M, Dang LH, Hwang P, Vogelstein A, Garrett-Mayer E, Kobrin B, **Pomper M**, Zhou S, Kinzler KW, Vogelstein B, Huso D. Pharmacologic and toxicologic evaluation of C. novyi-NT spores. *Toxicol Sci* 2005; 88:562-75.
- [47] Hardwick MJ, Chen M-K, Baidoo K, **Pomper MG**, Guilarte TR. In vivo imaging of benzodiazepine receptors in mouse lungs: a biomarker of inflammation. *Mol Imaging* 2005; 4:432-8.
- [48] Braverman NE, Mudd SH, Barker PB, **Pomper MG**. Characteristic MRI changes in severe hypermethioninemic states. *AJNR Am J Neuroradiology* 2005; 26:2705-6.
- [49] Franco LP, Anderson J, Okoh J, **Pomper MG**, Braverman N, Barker PB. Proton MR spectroscopy in hyperhomocysteinemia with elevated blood methionine levels. *J Magn Reson Imaging* 2006; 23:404-7.
- [50] Jones C, Schlosser M, van Zijl P, **Pomper M**, Golay Z, Zhou J. Amide proton transfer imaging of human brain tumors at 3T. *Magn Reson Med* 2006, 56:585-92.
- [51] Holt DP, Ravert HT, Dannals RF, **Pomper MG**. Synthesis of [¹¹C]gefitinib for imaging epidermal growth factor receptor tyrosine kinase with positron emission tomography. *J Labelled Compd Radiopharm* 2006; 49:883-888.
- [52] Wang Y, Seidel J, Tsui BMW, Vaquero JJ, **Pomper MG**. Performance evaluation of the GE eXplore VISTA DR small animal PET scanner. *J Nucl Med* 2006; 47:1891-1900.
- [53] Fu D-X, Tanhehco YC, Chen J, Foss CA, Fox J, Lemas V, Chong J-M, Ambinder RF, **Pomper MG**. Tumor imaging by induction of integrated viral gene expression. *Clin Cancer Res* 2007; 13:1453-1458.
- [54] Foss CA, Fox J, Feldman G, Maitra A, Iacobuzio-Donohue C, Kern SE, Hruban R, **Pomper MG**. Radiolabeled anti-claudin 4 and anti-PSCA: initial imaging in experimental models of pancreatic cancer. *Mol Imaging* 2007; 6:131-9.
- [55] Edden RAE, **Pomper MG**, Barker PB. Separate detection of NAA and NAAG using MEGA-PRESS at 3 Tesla. *Magn Reson Med* 2007; 57:977-82.
- [56] Lee JS, Orita H, Gabrielson K, Alvey S, Hagemann RL, Kuhujda FP, Gabrielson EW, **Pomper MG**. FDG-PET for pharmacodynamic assessment of the fatty acid synthase inhibitor C75 in an experimental model of lung cancer. *Pharm Res* 2007; 24:1202-7.
- [57] Zhang Y, Bressler JP, Neal J, Laterra J, **Pomper MG**. ABCG2/BCRP Expression Modulates D-Luciferin-based Bioluminescence Imaging. *Cancer Res* 2007; 67:9389-97.

- [58] Diaz LA, Foss CA, Thornton K, Nimmagadda S, Endres CJ, Uzuner O, Seyler TM, Ulrich SD, Conway J, Bettgowda C, Agrawal N, Cheong I, Zhang X, Ladenson PW, Vogelstein BN, Mont MA, Zhou S, Kinzler KW, Vogelstein B, **Pomper MG**. Imaging of musculoskeletal bacterial infections by [¹²⁴I]FIAU-PET/CT. *PLoS One* 2007; 2:e1007.
- [59] Madar I, Ravert HT, Nelkin B, Abro M, **Pomper M**, Dannals RF, Frost JJ. Characterization of membrane potential-dependent uptake of the novel voltage sensor ¹⁸F-fluorobenzyl triphenylphosphonium cation. *Eur J Nucl Med Mol Imaging* 2007; 34:2057-2075.
- [60] Mease RC, Dusich CL, Foss CA, Ravert HT, Dannals RF, Seidel J, Prideaux A, Fox JJ, Sgouros G, Kozikowski AP, **Pomper MG**. Synthesis and *in vivo* evaluation of *N*-[*N*-[(*S*)-1,3-dicarboxypropyl]carbonyl]-4-[¹⁸F]fluorobenzyl-L-cysteine, [¹⁸F]DCFBC: a new imaging probe for prostate cancer. *Clin Cancer Res* 2008; 14:3036-3043.
- [61] Donahue MJ, Blakeley JO, Zhou J, **Pomper MG**, Laterra J, van Zijl PCM. Evaluation of human brain tumor heterogeneity using MRI with multiple T1-based signal weighting approaches. *Magn Reson Med* 2008; 59:336-344.
- [62] Guilarte T, Hammoud DA, McGlothlan JL, Caffo BS, Foss CA, Kozikowski AP, **Pomper MG**. Dysregulation of glutamate carboxypeptidase II in psychiatric disease. *Schizophr Res* 2008; 99:324-332.
- [63] Tipre DN, Fox JJ, Holt DP, Green G, Yu J, **Pomper M**, Dannals RF, Bengel FM. In vivo PET imaging of cardiac presynaptic sympathoneuronal mechanisms in the rat. *J Nucl Med* 2008; 49:1189-1195.
- [64] Wang AY, Foss CA, Mo X, **Pomper MG**, Yu MS. Collagen mimetic peptide's binding specificity to collagen is driven by triple helical propensity. *Biomacromolecules* 2008; 9:1755-1763.
- [65] Chandran SS, Banerjee SR, Mease RC, **Pomper MG**, Denmeade SR. Formulation, characterization and *in vitro* toxicity of docetaxel loaded PSMA-targeted nanoparticles. *Cancer Biol Ther* 2008; 7:974-982.
- [66] Zhou J, Blakeley JO, Hua J, Kim M, Laterra JL, **Pomper MG**, van Zijl PCM. A practical data acquisition method for human brain amide proton transfer (APT) imaging. *Magn Reson Med* 2008; 60:842-849.
- [67] Banerjee SR, Foss CA, Castanares M, Mease RC, Byun Y, Fox JJ, Hilton J, Lupold S, Kozikowski AP, **Pomper MG**. Synthesis and evaluation of technetium-99m- and rhenium-labeled inhibitors of the prostate-specific membrane antigen (PSMA). *J Med Chem* 2008; 51:4504-4517.
- [68] Song H, Shahverdi K, Huso DL, Wang Y, Fox JJ, Hobbs RF, Gimi B, Gabrielson KL, **Pomper MG**, Tsui BM, Bhujwala Z, Reilly RT, Sgouros G. An immunotolerant HER-2/new transgenic mouse model of metastatic breast cancer. *Clin Cancer Res* 2008; 14:6116-6124.
- [69] Chen Y, Foss CA, Byun Y, Nimmagadda S, Pullambhatla M, Fox JJ, Castanares SE, Babich JW, Mease RC, **Pomper MG**. Radiohalogenated PSMA-based ureas as imaging agents for prostate cancer. *J Med Chem* 2008; 51:7933-7943.
- [70] Barinka C, Byun Y, Dusich CL, Ray S, Chen Y, Castanares M, Kozikowski AP, Mease RC, **Pomper MG**, Lubkowski J. Interactions between Human Glutamate Carboxypeptidase II and Urea-based Inhibitors: Structural Characterization. *J Med Chem*, 2008; 51:7737-7743.
- [71] Fu D, Tanhehco Y, Chen J, Foss CA, Fox JJ, Chong J-M, Fukayama M, Sgouros G, Kowalski J, **Pomper MG**, Ambinder RF. Bortezomib-induced enzyme-targeted radiotherapy in herpesvirus-associated tumors. *Nat Med* 2008; 14:1118-1122.

- [72] Terrovitis J, Kwok KF, Lautamaki R, Engles JM, Barth AS, Miake J, Leppo MK, Fox J, Seidel J, **Pomper M**, Wahl RL, Tsui B, Bengel F, Marban E, Abraham MR. Ectopic expression of the sodium-iodide symporter enables imaging of transplanted cardiac stem cells *in vivo* by SPECT or PET. *J Am Coll Cardiol* 2008; 52:1652-1660.
- [73] Gabrielson KL, Mok GSP, Nimmagadda S, Bedja D, Pin S, Tsao A, Wang Y, Sooryakumar D, Yu SJ, **Pomper MG**, Tsui BMW. Detection of dose response in chronic doxorubicin mediated cell death with cardiac SPECT ^{99m}Tc annexin V imaging. *Mol Imaging* 2008; 7:132-138.
- [74] Zhang Y, Laterra J, **Pomper MG**. Hedgehog pathway inhibitor HhAntag691 is a potent inhibitor of ABCG2/BCRP and ABCB1/Pgp. *Neoplasia* 2009; 11:96-101.
- [75] **Pomper MG**, Hammond H, Yu X, Ye Z, Foss CA, Lin DD, Fox JJ, Cheng L. Serial imaging of human embryonic stem cell engraftment and teratoma formation in live mouse models. *Cell Res* 2009; 19:370-379.
- [76] Nimmagadda S, Glunde K, **Pomper MG**, Bhujwalla ZM. Pharmacodynamic markers for choline kinase downregulation in breast cancer cells. *Neoplasia* 2009; 11:477-484.
- [77] Nimmagadda S, Pullambhatla M, **Pomper MG**. Immunoimaging of CXCR4 expression in brain tumor xenografts using SPECT/CT. *J Nucl Med* 2009; 50:1124-30.
- [78] Ma WW, Jacene H, Song D, Vilardell F, Messersmith WA, Laheru D, Wahl R, Endres C, Jimeno A, **Pomper MG**, Hidalgo M. [¹⁸F]Fluorodeoxyglucose positron emission tomography correlates with Akt pathway activity but is not predictive of clinical outcome during mTOR inhibitor therapy. *J Clin Oncol* 2009; 27:2697-704.
- [79] Lal B, Goodwin CR, Sang Y, Foss CA, Cornet K, Muzamil S, **Pomper MG**, Kim J, Laterra J. EGFRvIII and c-Met pathway inhibitors cooperate against PTEN-null/EGFRvIII⁺ glioblastoma xenografts independent of Akt and MAPK inhibition. *Mol Cancer Ther* 2009, 8:1751-60.
- [80] Zhang Y, Byun Y, Ren YR, Liu JO, Laterra J, **Pomper MG**. Identification of Inhibitors of ABCG2 by A Bioluminescence Imaging-based High-throughput Assay. *Cancer Res* 2009, 69; 5867-75.
- [81] Endres CJ, **Pomper MG**, James M, Uzuner O, Hammoud DA, Watkins C, Hilton J, Dannals RF, Kassiou M. Evaluation of [¹¹C] DPA-713 in man. *J Nucl Med*, 2009 50; 1276-82.
- [82] LeBeau AM, Banerjee SR, Pomper MG, Mease RC, Denmeade SR. Optimization of peptide-based inhibitors of prostate-specific antigen (PSA) as targeted imaging agents for prostate cancer. *Bioorg Med Chem* 2009; 17:4888-93.
- [83] Davis SL, Be N, Lamichhane G, Nimmagadda S, **Pomper MG**, Bishai WR, Jain SK. Bacterial thymidine kinase as a non-invasive imaging reporter for *Mycobacterium tuberculosis* in live animals. *PLoS One* 2009; 4:e6297.
- [84] Wang H, Pullambhatla M, Guilarte TR, Mease RC, **Pomper MG**. Synthesis of [(125)I]IodoDPA-713, a New Probe for Imaging Inflammation. *Biochem Biophys Res Commun* 2009, 389; 80-3.
- [85] Hillier SM, Maresca KP, Femia FJ, Marquis JC, Foss CA, Nguyen N, Zimmerman CN, Barrett JA, Eckelman WC, **Pomper MG**, Joyal JL, Babich JW. Preclinical Evaluation of Novel Glutamate-Urea-Lysine Analogues That Target Prostate-Specific Membrane Antigen as Molecular Imaging Pharmaceuticals for Prostate Cancer. *Cancer Res* 2009; 69: 6932-40.
- [86] Mohamed MA, Lentz MR, Degaonkar M, Lee V, Sacktor N, Conant K, Barker PB, **Pomper MG**. Factor analysis of Proton Magnetic Resonance Spectroscopy Imaging (MRSI) data reveals differences in HIV cognitive status. *Radiology* 2009; 254:577-586.
- [87] Davis SL, Nueremberger EL, Um P, Vidal C, Jedynak B, **Pomper MG**, Bishai WR, Jain SK. Monitoring tuberculosis treatment with [¹⁸F]-2-fluoro-deoxy-D-glucose positron emission

- tomography. *Antimicrob Agents Chemother* 2009; 53:4879-4884.
- [88] Chen Y, Dhara S, Banerjee SR, Byun Y, Pullambhatla M, Mease RC, **Pomper MG**. A low molecular weight PSMA-based fluorescent imaging agent for cancer. *Biochem Biophys Res Commun*. 2009; 390:624-9.
- [89] Terrovitis J, Lautamäki R, Bonios M, Fox J, Engles JM, Yu J, Leppo MK, **Pomper MG**, Wahl RL, Seidel J, Tsui BM, Bengel FM, Abraham MR, Marbán E. Noninvasive quantification and optimization of acute cell retention by in vivo positron emission tomography after intramyocardial cardiac-derived stem cell delivery. *J Am Coll Cardiol* 2009; 54:1619-26.
- [90] Hammoud DA, Endres CJ, Hammond E, Uzuner O, Brown A, Nath A, Kaplin AI, **Pomper MG**. Imaging serotonergic transmission with [¹¹C]DASB-PET in depressed and non-depressed patients infected with HIV. *Neuroimage* 2010; 49:2588-2595.
- [91] Wang H, Byun Y, Barinka C, Pullambhatla M, Bhang HE, Fox JJ, Lubkowski J, Mease RC, **Pomper MG**. Bioisosterism of urea-based GCPII inhibitors: synthesis and structure-activity relationship studies. *Bioorg Med Chem Lett* 2010; 20:392-397.
- [92] Nandoe Tewarie RDS, Yu J, Seidel J, Hurtado A, Takami T, Tsui BMW, Grotenhuis JA, **Pomper MG**, Oudega M. Positron emission tomography for serial imaging of the contused adult rat spinal cord. *Mol Imaging* 2010; 9:108-116.
- [93] Joyal JL, Barrett JA, Marquis JC, Chen J, Hillier SM, Maresca KP, Boyd M, Gage K, Nimmagadda S, Kronauge JF, Friebe M, Dinkelborg L, Stubbs JB, Stabin MG, Mairs R, **Pomper MG**, Babich JW. Preclinical evaluation of a ¹³¹I-labeled benzamide for targeted radiotherapy of metastatic melanoma. *Cancer Res* 2010 15; 70:4045-4053.
- [94] Nimmagadda S, Pullambhatla M, Stone K, Green G, Bhujwalla ZM, **Pomper MG**. Molecular imaging of CXCR4 receptor expression in human cancer xenografts with [⁶⁴Cu]AMD3100 positron emission tomography. *Cancer Res* 2010 15; 70:3935-3944.
- [95] Banerjee SR, Pullambhatla M, Byun Y, Nimmagadda S, Green G, Fox JJ, Horti A, Mease RC, **Pomper MG**. ⁶⁸Ga-labeled inhibitors of prostate-specific membrane antigen (PSMA) for imaging prostate cancer. *J Med Chem* 2010, 53:5333-5341.
- [96] Mohamed MA, Barker PB, Skolasky RL, Moxley RT, **Pomper MG**, Sacktor NC. Brain metabolism and cognitive impairment in HIV infection: A 3 tesla magnetic resonance spectroscopy study. *Magn Reson Imaging* 2010, 28:1251-1257.
- [97] Green MV, Ostrow H, Seidel J, **Pomper MG**. Experimental evaluation of depth-of-interaction correction in a small-animal positron emission tomography scanner. *Mol Imaging* 2010, 9:311-318.
- [98] Lentz MR, Degaonkar M, Mohamed MA, Kim H, Conant K, Halpern EF, Sacktor N, Barker PB, **Pomper MG**. Relationships between macrophage colony stimulating factor levels, neuroaxonal metabolism and cognition during chronic HIV-infection. *J Neurovirol* 2010, 16:368-376.
- [99] Bandaru VR, Mielke MM, Chu M, Lentz M, McArthur JC, Sacktor N, Chang L, Ernst T, Wojna V, Pardo C, **Pomper M**, Haughey NJ. CSF sphingomyelin/ceramide C24:1 ratio can predict declines of neurocognitive status in HIV-infected patients. *J Neurovirol* 2010; 16:14.
- [100] Hammoud DA, Munter FM, Brat DJ, **Pomper MG**. Magnetic resonance imaging features of pituitaryomas: analysis of 10 cases. *J Comput Assist Tomogr*. 2010 34:757-761.
- [101] Gao Y, Wang H, Mease RC, **Pomper MG**, Horti A. Improved Syntheses of Precursors for PET Radioligands [¹⁸F]XTRA and [¹⁸F]AZAN. *Tetrahedron Lett* 2010; 51:5333-5335.

- [102] Shim JS, Matsui Y, Bhat S, Nacev BA, Xu J, Bhang H-EC, Dhara S, Han KC, Chong CR, **Pomper MG**, So A, Liu JO. Nitroxoline inhibits angiogenesis and bladder cancer growth via dual inhibition of methionine aminopeptidase 2 and SirT1. *J Natl Cancer Inst* 2010; 102:1855-1873.
- [103] Bhang H-E, Gabrielson KL, Laterra J, Fisher PB, **Pomper MG**. Tumor-specific imaging through progression elevated gene-3 promoter-driven gene expression. *Nat Med* 2011; 17:123-129.
- [104] Peterson RA, Gabrielson KL, Johnson GA, **Pomper MG**, Coatney RW, Winkelmann CT. Continuing education course #1: Non-invasive imaging as a problem-solving tool and translational biomarker strategy in toxicologic pathology. *Toxicol Pathol* 2011; 39:267-72.
- [105] DeSilva RA, Peyre K, Pullambhatla M, Fox JJ, **Pomper MG**, Nimmagadda S. Imaging CXCR4 expression in human cancer xenografts: Evaluation of monocyclam [⁶⁴Cu]AMD3465. *J Nucl Med* 2011; 52:986-93.
- [106] Qiao Y, Huang X, Nimmagadda S, Bai R, Staedtke V, Foss CA, Cheong I, Holdhoff M, Kato Y, **Pomper MG**, Riggins GJ, Kinzler KW, Diaz LA Jr, Vogelstein B, Zhou S. A robust approach to enhance tumor-selective accumulation of nanoparticles. *Oncotarget* 2011; 2:59-68.
- [107] Wilson BA, Wang H, Nacev BA, Mease RC, Liu JO, **Pomper MG**, Isaacs WB. High-throughput screen identifies novel inhibitors of cancer biomarker {alpha}-methylacyl coenzyme a racemase (AMACR/P504S). *Mol Cancer Ther* 2011; 10:825-38.
- [108] Endres CJ, Hammoud DA, **Pomper MG**. Reference tissue modeling with parameter coupling: application to a study of SERT binding in HIV. *Phys Med Biol* 2011; 56:2499-513.
- [109] Bonios M, Terrovitis J, Chang CY, Engles JM, Higuchi T, Lautamäki R, Yu J, Fox J, **Pomper MG**, Wahl RL, Tsui BM, O'Rourke B, Bengel FM, Marbán E, Roselle Abraham M. Myocardial substrate and route of administration determine acute cardiac retention and lung bio-distribution of cardiosphere-derived cells. *J Nucl Cardiol* 2011; 18:443-50.
- [110] Reinfelder J, Maschauer S, Foss CA, Nimmagadda S, Fremont V, Wolf V, Weintraub BD, **Pomper MG**, Szkudlinski MW, Kuwert T, Prante O. Effects of recombinant human thyroid-stimulating hormone superagonists on thyroidal uptake of (18)F-fluorodeoxyglucose and radioiodide. *Thyroid* 2011; 21:783-92.
- [111] Cheng Y, Yang J, Agarwal R, Green GM, Mease RC, **Pomper MG**, Meltzer SJ, Abraham JM. Strong inhibition of xenografted tumor growth by low-level doses of [³²P]ATP. *Oncotarget* 2011; 2:461-6.
- [112] Patil RR, Yu J, Banerjee SR, Ren Y, Leong D, Jiang X, **Pomper M**, Tsui B, Kraitchman DL, Mao HQ. Probing in vivo trafficking of polymer/DNA micellar nanopartiaicles using SPECT/CT imaging. *Mol Ther* 2011; 19:1626-35.
- [113] Hobbs RF, Baechler S, Fu DX, Esaias C, **Pomper MG**, Ambinder RF, Sgouros G. A model of cellular dosimetry for macroscopic tumors in radiopharmaceutical therapy. *Med Phys* 2011; 38:2892-903.
- [114] Banerjee SR, Pullambhatla M, Byun Y, Nimmagadda S, Foss CA, Green G, Fox JJ, Lupold SE, Mease RC, **Pomper MG**. Sequential SPECT and optical imaging of experimental models of prostate cancer with a dual modality inhibitor of the prostate-specific membrane antigen. *Angew Chem Int Ed Engl* 2011; 50:9167-70.
- [115] Plechanovova A, Byun Y, Alquicer G, Skultetyova L, Mlcochova P, Nemcova A, Kim HJ, Navratil M, Mease R, Lubkowski J, **Pomper M**, Konvalinka J, Rulisek L, Barinka C. Novel substrate-based inhibitors of human glutamate carboxypeptidase II with enhanced lipophilicity. *J Med Chem* 2011; 54:7535-46.

- [116] Park J, Dvoracek C, Lee KH, Galloway JF, Bhang HE, **Pomper MG**, Searson PC. CuInSe/ZnS core/shell NIR quantum dots for biomedical imaging. *Small* 2011; 7:3148-52.
- [117] Penet MF, Gadiya MM, Krishnamachary B, Nimmagadda S, **Pomper MG**, Artemov D, Bhujwala ZM. Metabolic signatures imaged in cancer-induced cachexia. *Cancer Res* 2011; 71:6948-56.
- [118] Chen Y, Pullambhatla M, Foss CA, Byun Y, Nimmagadda S, Senthamizhchelvan S, Sgouros G, Mease RC, **Pomper MG**. 2-(3-{1-Carboxy-5-[(6-[¹⁸F]fluoro-pyridine-3-carbonyl)-amino]-pentyl}-ureido)-pentanedioic acid, [¹⁸F]DCFPyL, a PSMA-based PET imaging agent for prostate cancer. *Clin Cancer Res* 2011; 17:7645-53.
- [119] Banerjee SR, Pullambhatla M, Shallal H, Lisok A, Mease RC, **Pomper MG**. A modular strategy to prepare multivalent inhibitors of prostate-specific membrane antigen (PSMA). *Oncotarget* 2011; 2:1244-53.
- [120] Ratchford JN, Endres CJ, Hammoud DA, **Pomper MG**, Shiee N, McGready J, Pham DL, Calabresi PA. Decreased microglial activation in MS patients treated with glatiramer acetate. *J Neurol* 2012; 259:1199-205.
- [121] Harper J, Skerry C, Davis SL, Tasneen R, Weir M, Kramnik I, Bishai WR, **Pomper MG**, Nueremberger EL, Jain SK. Mouse model of necrotic tuberculosis granulomas develops hypoxic lesions. *J Infect Dis* 2012; 205:595-602.
- [122] Endres CJ, Coughlin JM, Gage KL, Watkins CC, Kassiou M, **Pomper MG**. Radiation dosimetry and biodistribution of the TSPO ligand ¹¹C-DPA-713 in humans. *J Nucl Med* 2012; 53:330-5.
- [123] Cheng Y, Senthamizhchelvan S, Agarwal R, Green GM, Mease RC, Sgouros G, Huso DL, **Pomper MG**, Meltzer SJ, Abraham JM. [³²P]ATP inhibits the growth of xenografted tumors in nude mice. *Cell Cycle* 2012; 11:1878-82.
- [124] Pullambhatla M, Tessier J, Beck G, Jedynek B, Wurthner JU, **Pomper MG**. [¹²⁵I]FIAU imaging in a preclinical model of lung infection: quantification of bacterial load. *Am J Nucl Med Mol Imaging* 2012; 2:260-70.
- [125] Zhang Y, Pullambhatla M, Laterra J, **Pomper MG**. Influence of bioluminescence imaging dynamics by D-luciferin uptake and efflux mechanisms. *Mol Imaging* 2012; 11:499-506.
- [126] Alquicer G, Sedlak D, Byun Y, Pavlicek J, Stathis M, Rojas C, Slusher B, **Pomper MG**, Bartunek P, Barinka C. Development of a high-throughput fluorescence polarization assay to identify novel ligands of glutamate carboxypeptidase II. *J Biomol Screen* 2012; 17:1030-40.
- [127] Cho SY, Gage KL, Mease RC, Senthamizhchelvan S, Holt DP, Jeffrey-Kwanisai A, Endres CJ, Dannals RF, Sgouros G, Lodge M, Eisenberger MA, Rodriguez R, Carducci MA, Rojas C, Slusher BS, Kozikowski AP, **Pomper MG**. Biodistribution, tumor detection, and radiation dosimetry of ¹⁸F-DCFBC, a low-molecular-weight inhibitor of prostate-specific membrane antigen, in patients with metastatic prostate cancer. *J Nucl Med* 2012; 53:1883-91.
- [128] Rahn KA, Watkins CC, Alt J, Rais R, Stathis M, Grishkan I, Crainiceau CM, **Pomper MG**, Rojas C, Pletnikov MV, Calabresi PA, Brandt J, Barker PB, Slusher BS, Kaplin AI. Inhibition of glutamate carboxypeptidase II (GCPII) activity as a treatment for cognitive impairment in multiple sclerosis. *Proc Natl Acad Sci USA* 2012; 109:20101-6.
- [129] Chen Y, Pullambhatla M, Banerjee SR, Byun Y, Stathis M, Rojas C, Slusher BS, Mease RC, **Pomper MG**. Synthesis and biological evaluation of low molecular weight fluorescent imaging agents for the prostate-specific membrane antigen. *Bioconjug Chem* 2012; 23:2377-85.

- [130] Sagar D, Lamontagne A, Foss CA, Khan ZK, **Pomper MG**, Jain P. Dendritic cell CNS recruitment correlates with disease severity in EAE via CCL2 chemotaxis at the blood-brain barrier through paracellular transmigration and ERK activation. *J Neuroinflammation* 2012; 9:245.
- [131] Krishnamachary B, Penet MF, Nimmagadda S, Mironchik Y, Raman V, Solaiyappan M, Semenza GL, **Pomper MG**, Bhujwala ZM. Hypoxia regulates CD44 and its variant isoforms through HIF-1 α in triple negative breast cancer. *PLoS One* 2012; 7:e44078.
- [132] Li Y, Foss CA, Summerfield DD, Doyle JJ, Torok CM, Dietz HC, **Pomper MG**, Yu SM. Targeting collagen strands by photo-triggered triple-helix hybridization. *Proc Natl Acad Sci USA* 2012; 109:14767-72.
- [133] Chen Z, Penet MF, Nimmagadda S, Li C, Banerjee SR, Winnard PT Jr, Artemov D, Glunde K, **Pomper MG**, Bhujwala ZM. PSMA-targeted theranostic nanoplex for prostate cancer therapy. *ACS Nano* 2012; 6:7752-62
- [134] Hung CF, Chiang AJ, Tsai HH, **Pomper MG**, Kang TH, Roden RR, Wu TC. Ovarian cancer gene therapy using HPV-16 pseudovirion carrying the HSV-tk gene. *PLoS One* 2012; 7:e40983.
- [135] Foerster BR, Dwamena BA, Petrou M, Carlos RC, Callaghan BC, **Pomper MG**. Diagnostic accuracy using diffusion tensor imaging in the diagnosis of ALS: a meta-analysis. *Acad Radiol*. 2012; 19:1075-86.
- [136] Chang C, Chan A, Lin X, Higuchi T, Terrovitis J, Afzal JM, Rittenbach A, Sun D, Vakrou S, Woldemichael K, O'Rourke B, Wahl R, **Pomper MG**, Tsui B, Abraham MR. Cellular bioenergetics is an important determinant of the molecular imaging signal derived from luciferase and the sodium-iodide symporter. *Circ Res* 2013; 112:441-50.
- [137] Chaux A, Eifler J, Karram S, Al-Hussain T, Faraj S, **Pomper M**, Rodriguez R, Netto GJ. Focal positive prostate-specific membrane antigen (PSMA) expression in ganglionic tissues associated with prostate neurovascular bundle: Implications for novel intraoperative PSMA-based fluorescent imaging techniques. *Urol Oncol* 2013; 5:572-5.
- [138] Byun Y, Pullambhatla M, Wang H, Mease RC, **Pomper MG**. Synthesis and biological evaluation of substrate-based imaging agents for the prostate-specific membrane antigen. *Macromol Res* 2013; 21:565-573.
- [139] Coughlin JM, Ishizuka K, Kano SI, Edwards JA, Seifuddin FT, Shimano MA, Daley EL, Zandi PP, Leweke FM, Cascella NG, **Pomper MG**, Yolken RH, Sawa A. Marked reduction of soluble superoxide dismutase-1 (SOD1) in cerebrospinal fluid of patients with recent-onset schizophrenia. *Mol Psychiatry* 2013; 18:10-11.
- [140] Jaaro-Peled H, Niwa M, Foss CA, Murai R, Pou S, Kamiya A, Mateo Y, O'Donnell P, Cascella NG, Nabeshima T, Guilarte TR, **Pomper M**, Sawa A. Subcortical dopaminergic deficits in a DISC1 mutant model: a study in direct reference to human molecular brain imaging. *Hum Mol Genet* 2013; 22:1574-80.
- [141] Bar-Shir A, Liu G, Liang Y, Yadav NN, McMahan MT, Walczak P, Nimmagadda S, **Pomper MG**, Tallman KA, Greenberg MM, van Zijl PC, Bulte JW, Gilad AA. Transforming thymidine into a magnetic resonance imaging probe for monitoring gene expression. *J Am Chem Soc* 2013; 135:1617-24.
- [142] Foerster B, **Pomper MG**, Callaghan B, Petrou M, Edden R, Mohamed M, Welsh R, Carlos R, Barker P, Feldman E. An imbalance between excitatory and inhibitory neurotransmitters in amyotrophic lateral sclerosis revealed by use of 3-T proton magnetic resonance spectroscopy. *JAMA Neurology* 2013; 70:1009-16.

- [143] Tzeng S, Higgins L, **Pomper MG**, Green JJ. Biomaterial-mediated cancer-specific DNA delivery to liver cell cultures using synthetic poly (beta-amino esters). *J Biomed Mater Res A* 2013; 101:1837-45.
- [144] Baba J, Endres C, Foss C, Nimmagadda S, Jung H, Goddard J, Lee S, McKisson J, Smith M, Stolin A, Weisenberger A, **Pomper MG**. Conscious, unrestrained molecular imaging of mice with AwakeSPECT. *J Nucl Med* 2013; 54:969-76.
- [145] Ravert H, Dorff P, Foss C, Mease R, Fan H, Holmquist C, Phillips E, McCarthy D, Heys J, Holt D, Wang Y, Endres C, Dannals R, **Pomper MG**. Radiochemical synthesis and in vivo evaluation of [¹⁸F]AZ11637326: An agonist probe for the $\alpha 7$ nicotinic acetylcholine receptor. *Nucl Med Biol* 2013; 40:731-9.
- [146] Kim TH, Swierczewska M, Oh Y, Kim A, Jo D, Park J, Byun Y, Sadegh-Nasseri S, **Pomper MG**, Lee K, Lee S. A facile, reversible PEGylation for fast screening of potential therapeutic proteins in vivo. *Angew Chem Int Ed Engl* 2013; 52:6880-4.
- [147] Zhou J, Zhu H, Lim M, Blair L, Quinones-Hinojosa A, Messina S, Eberhart C, **Pomper MG**, Lattera J, Barker P, van Zijl P, Blakeley J. Three-dimensional amide proton transfer MR imaging of gliomas: Initial experience and comparison with gadolinium enhancement. *J Magn Reson Imaging* 2013; 38:1119-28.
- [148] Yang X, Song X, Li Y, Liu G, Ray Banerjee SR, **Pomper MG**, McMahon MT. Salicylic acid and analogues as dis CEST MRI contrast agents with highly shifted exchangeable proton frequencies. *Angew Chem Int Ed Engl* 2013; 2952:8116-9.
- [149] Banerjee SR, Pullambhatla M, Foss CA, Falk A, Byun Y, Nimmagadda S, Mease RC, **Pomper MG**. Effect of chelators on the pharmacokinetics of ^{99m}Tc-labeled imaging agents for the prostate-specific membrane antigen (PSMA). *J Med Chem* 2013; 56:6108-21.
- [150] Franc BL, Cho SY, Rosenthal SA, Cui Y, Tsui B, Vandewalker KM, Holz AL, Poonamallee U, **Pomper MG**, James RB. Detection and localization of carcinoma within the prostate using high resolution transrectal gamma imaging (TRGI) of monoclonal antibody directed at prostate specific membrane antigen (PSMA) – proof of concept and initial imaging results. *Eur J Radiol* 2013; 82:1877-84.
- [151] Foerster BR, Dwamena BA, Petrou M, Carlos RC, Callaghan BC, Churchill CL, Mohamed MA, Bartels C, Benatar M, Bonzano L, Ciccarelli O, Cosottini M, Ellis CM, Ehrenreich H, Filippini N, Ito M, Kalra S, Melhem ER, Pyra T, Roccatagliata L, Senda J, Sobue G, Turner MR, Feldman EL, **Pomper MG**. Diagnostic accuracy of diffusion tensor imaging in amyotrophic lateral sclerosis: a systematic review and individual patient data meta-analysis. *Acad Radiol* 2013; 20:1099-106.
- [152] Foss C, Harper JS, Wang H, **Pomper MG**, Jain SK. Noninvasive molecular imaging of tuberculosis-associated inflammation with radioiodinated DPA-713. *J Infect Dis* 2013; 208:2067-74.
- [153] Nimmagadda S, Pullambhatla M, Lisok A, Hu C, Maitra A, **Pomper MG**. Imaging Axl expression in pancreatic and prostate cancer xenografts. *Biochem Biophys Res Commun* 2014; 443:635-40.
- [154] Fairweather D, Coronado MJ, Garton AE, Dziedzic JL, Bucek A, Cooper LT Jr, Brandt JE, Alikhan FS, Wang H, Endres C, Chio J, **Pomper MG**, Guilarte TR. Sex differences in translocator protein kDa (TSPO) in the heart: Implications for imaging myocardial inflammation. *J Cardiovasc Transl Res* 2014; 7:192-202.
- [155] Shallal HM, Banerjee SR, Lisok A, Mease RC, **Pomper MG**. Heterobivalent agents targeting PSMA and Integrin- $\alpha_v\beta_3$. *Bioconjug Chem* 2014; 25:393-405.

- [156] Banerjee SR, Pullambhatla M, Foss CA, Nimmagadda S, Ferdani R, Anderson CJ, Mease RC, **Pomper MG**. ^{64}Cu -labeled inhibitors of prostate-specific membrane antigen for PET imaging of prostate cancer. *J Med Chem* 2014; 57: 2657-2669.
- [157] Horti A, Gao Y, Kuwabara H, Wang Y, Abazyan S, Yasuda RP, Tran T, Xiao Y, Sahibzada N, Holt D, Kellar K, Pletnikov MV, **Pomper MG**, Wong DF, Dannals RF. ^{18}F -ASEM. A radiolabeled antagonist for imaging the $\alpha 7$ -nicotinic acetylcholine receptor with PET. *J Nucl Med* 2014; 55:672-677.
- [158] Coughlin JM, Wang Y, Ma S, Yue C, Kim PK, Adams AV, Roosa HV, Gage KL, Stathis M, Rais R, Rojas C, McGlothlan JL, Watkins CC, Sacktor N, Guilarte TR, Zhou Y, Sawa A, Slusher BS, Caffo B, Kassiou M, Endres CJ, **Pomper MG**. Regional brain distribution of translocator protein using [^{11}C]DPA-713 PET in individuals infected with HIV. *J Neurovirol* 2014; 20:219-232.
- [159] Pavlicek J, Ptacek J, Cerny J, Byun Y, Skultetyova L, **Pomper MG**, Lubkowski J, Barinka C. Structural characterization of P1' diversified urea-based inhibitors of glutamate carboxypeptidase II. *Bioorg Med Chem Lett* 2014; 24:2340-2345.
- [160] Castanares M, Mukhrhee A, Chowdhury W, Liu M, Chen Y, Mease R, Wang Y, Rodriguez R, Lupold S, **Pomper MG**. Evaluation of prostate-specific membrane antigen as an imaging reporter. *J Nucl Med* 2014; 55:805-811.
- [161] Li Y, Foss CA, **Pomper MG**, Yu SM. Imaging denatured collagen strands in vivo and ex vivo via photo-triggered hybridization of caged collagen mimetic peptides. *J Vis Exp* 2014; doi: 10.3791/51052.
- [162] Song X, Yang X, Banerjee SR, **Pomper MG**, McMahon MT. Anthranilic acid analogues as diamagnetic CEST (diaCEST) MRI contrast agents that feature an IntraMolecular-bond Shifted Hydrogen (IM-SHY). *Contrast Media Mol* 2014; 10:74-80.
- [163] Minn I, Wang H, Mease RC, Byun Y, Yang X, Wang J, Leach SD, **Pomper MG**. A red-shifted fluorescent substrate for aldehyde dehydrogenase. *Nat Commun* 2014; 5:3662-3670.
- [164] Foerster BR, Carlos RC, Dwamena BA, Callaghan BC, Petrou M, Edden RA, Mohamed MA, Welsh RC, Barker PB, Feldman EL, **Pomper MG**. Multimodal MRI as a diagnostic biomarker for amyotrophic lateral sclerosis. *Ann Clin Transl Neurol* 2014; 1:107-14.
- [165] Wu J, Stoica BA, Luo T, Sabirzhanov B, Zhao Z, Guanciale K, Nayar SK, Foss CA, **Pomper MG**, Faden AI. Isolated spinal cord contusion in rats induces chronic brain neuroinflammation, neurodegeneration and cognitive impairments. *Cell Cycle* 2014; 13:2446-58.
- [166] Woodard LE, De Silva RA, Behnam Azad B, Lisok A, Pullambhatla M, Lesniak W, Mease RC, **Pomper MG**, Nimmagadda S. Bridged cyclams as imaging agents for chemokine receptor 5 (CXCR4). *Nucl Med Biol* 2014; 41; 552-561.
- [167] Wong DF, Kuwabara H, **Pomper M**, Hold DP, Brasic JR, George N, Frolov B, Willis W, Gao Y, Valentine H, Nandi A, Gapasin L, Dannals RF, Horti AG. Human brain imaging of $\alpha 7$ nAChR with [^{18}F]ASEM: a new PET radiotracer for neuropsychiatry and determination of drug occupancy. *Mol Imaging Biol* 2014; 16:730-8.
- [168] Weinstein EA, Ordonez AA, DeMarco VP, Murawski AM, Pokkali S, MacDonald EM, Klunk M, Mease RC, **Pomper MG**, Jain SK. Imaging enterobacteriaceae infection with fluorodeoxysorbitol positron emission tomography. *Sci Trans Med* 2014; 6:259ra146.
- [169] Yang X, Yadav NN, Song X, Banerjee SR, Edelman H, Minn I, van Zijl PCM, **Pomper MG**, McMahon MT. Tuning phenols with intra-molecular bond shifted hydrogens (IM-SHY) as diaCEST MRI contrast agents. *Chemistry* 2014; 20:15824-32.

- [170] Bhatnagar A, Wang Y, Mease RC, Gabrielson M, Sysa P, Minn I, Green G, Simmons B, Gabrielson K, Sarkar S, Fisher PB, **Pomper MG**. AEG-1 promoter-mediated imaging of prostate cancer. *Cancer Res* 2014; 74:5772-81
- [171] Neuman BP, Eifler JB, Castanares M, Chowdhury WH, Chen Y, Mease RC, Ma R, Mukherjee A, Lupold SE, **Pomper MG**, Rodriguez R. Real-time, near-infrared fluorescence imaging with an optimized dye/light source/camera combination for surgical guidance of prostate cancer. *Clin Cancer Res* 2015; 21:771-80.
- [172] Ordonez AA, Pokkali S, DeMarco VP, Klunk M, Mease RC, Foss CA, **Pomper MG**, Jain SK. Radioiodinated DPA-713 imaging correlates with bactericidal activity of tuberculosis treatments in mice. *Antimicrob Agents Chemother* 2015; 59:642-9
- [173] Yoon HY, Son S, Lee SJ, You DG, Yhee JY, Park JH, Swierczewska M, Lee S, Kwon IC, Kim SH, Kim K, **Pomper MG**. Glycol chitosan nanoparticles as specialized cancer therapeutic vehicles: sequential delivery of doxorubicin and Bcl-2 siRNA. *Sci Rep* 2014; 4:6878.
- [174] Rock R, Bachmann V, Bhang HE, Malleshaiah M, Raffener P, Mayhofer JE, Tschaikner PM, Bister K, Aanstad P, **Pomper MG**, Michnick SW, Stefan E. In-vivo detection of binary PKA network interactions upon activation of endogenous GPCRs. *Sci Rep* 2015; 5:11133.
- [175] Rowe SP, Gage KL, Faraj SF, Macura KJ, Cornish TC, Gonzalez-Roibon N, Guner G, Munari E, Partin AW, Pavlovich CP, Han M, Carter HB, Bivalacqua TJ, Blackford A, Holt D, Dannals RF, Netto GJ, Lodge MA, Mease RC, **Pomper MG**, Cho SY. ¹⁸F-DCFBC PET/CT for PSMA-Based detection and characterization of primary prostate cancer. *J Nucl Med* 2015; 56:1003-10.
- [176] Liu S, Zhang P, Ray Banerjee S, Xu J, **Pomper MG**, Cui H. Design and assembly of supramolecular dual-modality nanoprobe. *Nanoscale* 2015; 7:9462-6.
- [177] Banerjee SR, Ngen EJ, Rotz MW, Kakkad S, Lisok A, Pracitto R, Pullambhatla M, Chen Z, Shah T, Artemov D, Meade TJ, Bhujwalla ZM, **Pomper MG**. Synthesis and evaluation of Gd(III)-based magnetic resonance contrast agents for molecular imaging of prostate-specific membrane antigen. *Angew Chemie Intl Ed Engl*. 2015 Sep 7; 54:10778-82.
- [178] Kiess AP, Minn IL, Chen Y, Hobbs R, Mease RC, Pullambhatla M, Foss CA, **Pomper MG**. Auger radiopharmaceutical therapy targeting prostate-specific membrane antigen. *J Nucl Med* 2015; 56:1401-7.
- [179] Cheng Y, Kiess AP, Herman JM, **Pomper MG**, Meltzer SJ, Abraham JM. Phosphorus-32, a clinically available drug, inhibits cancer growth by inducing DNA double-strand breakage. *PLoS One* 2015; 10:e0128152.
- [180] Savonenko AV, Melnikova T, Wang Y, Ravert H, Gao Y, Koppel J, Lee D, Pletnikova O, Cho E, Sayyida N, Hiatt A, Troncoso J, Davies P, Dannals RF, **Pomper MG**, Horti AG. Cannabinoid CB2 receptors in a mouse model of A β Amyloidosis: Immunohistochemical analysis and suitability as a PET biomarker of neuroinflammation. *PLoS One* 2015; 10:e0129618.
- [181] Coughlin J, Tanaka T, Marsman A, Wang H, Bonekamp S, Kim PK, Higgs C, Varvaris M, Edden RA, **Pomper MG**, Schretlen D, Barker PB, Sawa A. Decoupling of N-acetyl-aspartate and glutamate within the dorsolateral prefrontal cortex in schizophrenia. *Curr Mol Med* 2015; 15:176-83.
- [182] Coughlin J, Wang Y, Munro CA, Ma S, Yue C, Chen S, Airan R, Kim PK, Adams AV, Garcia C, Higgs C, Sair HI, Sawa A, Smith G, Lyketsos CG, Caffo B, Kassiou M, Guilarte TR, **Pomper MG**. Neuroinflammation and brain atrophy in former NFL players: An in vivo multimodal imaging pilot study. *Neurobiol Dis* 2015; 74:58-65.

- [183] Lesniak WG, Sikorska E, Shallal H, Behnam Azad B, Lisok A, Pullambhatla M, **Pomper MG**, Nimmagadda S. Structural characterization and in vivo evaluation of β -hairpin peptidomimetics as specific CXCR4 imaging agents. *Mol Pharm* 2015; 12:941-53.
- [184] Behnam Azad B, Banerjee SR, Pullambhatla M, Lacerda S, Foss CA, Wang Y, Ivkov R, **Pomper MG**. Evaluation of a PSMA-targeted BNF nanoparticle construct. *Nanoscale* 2015; 7:4432-42
- [185] Banerjee SR, Foss CA, Pullambhatla M, Wang Y, Srinivasan S, Hobbs RF, Baidoo KE, Brechbiel MW, Nimmagadda S, Mease RC, Sgouros G, **Pomper MG**. Preclinical evaluation of ^{86}Y -labeled inhibitors of prostate-specific membrane antigen for dosimetry estimates. *J Nucl Med* 2015; 56:628-34.
- [186] Szabo Z, Mena E, Rowe SP, Plyku D, Nidal R, Eisenberger MA, Antonarakis ES, Fan H, Dannals RF, Chen Y, Mease RC, Vranesic M, Bhatnagar A, Sgouros G, Cho SY, **Pomper MG**. Initial evaluation of [^{18}F]DCFPyL for prostate-specific membrane antigen (PSMA)-targeted PET imaging of prostate cancer. *Mol Imaging Biol* 2015; 17:565-74.
- [187] Minn I, Bar-Shir A, Yarlagadda K, Bulte JW, Fisher PB, Wang H, Gilad AA, **Pomper MG**. Tumor-specific expression and detection of a CEST reporter gene. *Magn Reson Med* 2015; 74:544-9.
- [188] Gao Y, Mease RC, Olson TT, Kellar KJ, Dannals RF, **Pomper MG**, Horti AG. [^{125}I]Iodo-ASEM, a specific in vivo radioligand for $\alpha 7$ -nAChR. *Nucl Med Biol* 2015; 42:488-93.
- [189] Foss CA, Bedja D, Mease RC, Wang H, Kass DA, Chatterjee S, **Pomper MG**. Molecular imaging of inflammation in the ApoE $-/-$ mouse model of atherosclerosis with IodoDPA. *Biochem Biophys Res Commun* 2015; 461:70-5.
- [190] Mishra S, Bedja D, Amuzie C, Foss CA, **Pomper MG**, Bhattacharya R, Yarema KJ, Chatterjee S. Improved intervention of atherosclerosis and cardiac hypertrophy through biodegradable polymer-encapsulated delivery of glycosphingolipid inhibitor. *Biomaterials* 2015; 64:125-35.
- [191] Rowe SP, Gorin MA, Hammers HJ, Som Javadi M, Hawasli H, Szabo Z, Cho SY, **Pomper MG**, Allaf ME. Imaging of metastatic clear cell renal cell carcinoma with PSMA-targeted ^{18}F -DCFPyL PET/CT. *Ann Nucl Med* 2015; 29:877-82.
- [192] Wegrzynowicz M, Jo Bichell T, Soares BD, Loth MK, McGlothan JS, Mori S, Alikhan FS, Hua K, Coughlin JM, Holt HK, Jetter CS, **Pomper MG**, Osmand AP, Guilarte TR, Bowman AB. Novel BAC mouse model of Huntington's disease with 225 CAG repeats exhibits and early widespread and stable degenerative phenotype. *J Huntingtons Dis* 2015; 4:17-36.
- [193] Chan AT, Karakas MF, Vakrou S, Afzal J, Rittenbach A, Lin X, Wahl RL, **Pomper MG**, Steenbergen CJ, Tsui BM, Elisseeff JH, Abraham MR. Hyaluronic acid-serum hydrogels rapidly restore metabolism of encapsulated stem cells and promote engraftment. *Biomaterials* 2015; 73:1-11.
- [194] Oh Y, Swierczewska M, Kim TH, Lim SM, Eom HN, Park JH, Na DH, Kim K, Lee KC, **Pomper MG**, Lee S. Delivery of tumor-homing TRAIL sensitizer with long-acting TRAIL as a therapy for TRAIL-resistant tumors. *J Control Release* 2015; 220 (Pt B):671-81.
- [195] Yang X, Minn I, Rowe SP, Banerjee SR, Gorin MA, Brummet M, Lee HS, Koo SM, Sysa-Shah P, Mease RC, Nimmagadda S, Allaf ME, **Pomper MG**. Imaging of carbonic anhydrase IX with an ^{111}In -labeled dual-motif inhibitor. *Oncotarget* 2015; 6:33733-33742.
- [196] Rowe SP, Gorin MA, Hammers HJ, **Pomper MG**, Allaf ME, Javadi MS. Detection of ^{18}F -FDG PET/CT occult lesions with ^{18}F -DCFPyL PET/CT in a patient with metastatic renal cell carcinoma. *Clin Nucl Med* 2016; 41:83-5.

- [197] Meng J, Liu Y, Gao S, Lin S, Gu X, **Pomper MG**, Wang PC, Shan L. A bivalent recombinant immunotoxin with high potency against tumors with EGFR and ECGRvIII expression. *Cancer Biol Ther* 2016; in press.
- [198] Rowe SP, Macura KJ, Ciarallo A, Mena E, Blackford A, Nadal R, Antonarakis E, Eisenberger M, Carducci M, Ross A, Kantoff P, Holt DP, Dannals RF, Mease RC, **Pomper MG**, Cho SY. Comparison of PSMA-based 18F-DCFBC PET/CT to conventional imaging modalities for detection of hormone-naïve and castration-resistant metastatic prostate cancer. *J Nucl Med* 2016; 57:46-53.
- [199] Castanares MA, Copeland BT, Chowdhury WH, Liu MM, Rodriguez R, **Pomper MG**, Lupold SE, Foss CA. Characterization of a novel metastatic prostate cancer cell line of LNCaP origin. *Prostate* 2015; in press.
- [200] Rowe SP, Deville C, Cho SY, Fishman EK, **Pomper MG**, Ross AE, Gorin MA. Uptake of 18F-DCFPyL in Paget's disease of bone, an important potential pitfall in clinical interpretation of PSMA PET studies. *Tomography* 2015; 1:81-84.
- [201] Zhu C, Bandekar A, Sempkowski M, Banerjee SR, **Pomper MG**, Bruchertseifer F, Morgenstern A, Sofou S. Nanoconjugation of PSMA-targeting ligands enhances perinuclear localization and improves efficacy of delivered alpha-particle emitters against tumor endothelial analogues. *Mol Cancer Ther* 2016; 15:106-13.
- [202] Loth M, Choi J, McGlothlan JL, Pletnikov MV, **Pomper MG**, Guilarte TR. TSPO in a murine model of Sandhoff disease: Presymptomatic marker of neurodegeneration and disease pathology. *Neurobiol Dis* 2016; 85:174-86.
- [203] Yang X, Mease RC, Pullambhatla M, Lisok A, Chen Y, Foss CA, Wang Y, Shallal H, Edelman H, Hoyer A, Attardo G, Nimmagadda S, **Pomper MG**. [¹⁸F]Fluorobenzoyl-lysine-pentanedioic acid carbamates: New scaffolds for PET imaging of PSMA. *J Med Chem* 2016; in press.
- [204] Xu X, Yadav NN, Knutsson L, Hua J, Kalyani R, Hall E, Laterra J, Blakeley J, **Pomper M**, Barker P, Chan K, Liu G, McMahon MT, Stevens R, van Zijl PCM. Dynamic glucose-enhanced (DGE) MRI: Translation to human scanning and first results in glioma patients. *Tomography* 2015; 1:105-114.
- [205] Chen Z, Penet M-F, Krishnamachary B, Banerjee SR, **Pomper MG**, Bhujwala ZM. PSMA-specific theranostic nanoplex for combination of TRAIL gene and 5-FC prodrug therapy of prostate cancer. *Biomaterials* 2016; 80:57-67.
- [206] Oh Y, Park O, Swierczewska M, Hamilton JP, Park JS, Kim TH, Lim SM, Eom H, Jo DG, Lee CE, Kechrid R, Mastorakos P, Zhang C, Hahn SK, Jeon OC, Byun Y, Kim K, Hanes J, Lee KC, **Pomper MG**, Gao B, Lee S. Systemic PEGylated TRAIL treatment ameliorates liver cirrhosis in rats by eliminating activated hepatic stellate cells. *Hepatology* 2016; in press.
- [207] Chatterjee S, Lesniak WG, Gabrielson M, Lisok A, Wharram B, Sysa-Shah P, Azad BB, **Pomper MG**, Nimmagadda S. A humanized antibody for imaging immune checkpoint ligand PD-L1 expression in tumors. *Oncotarget* 2016; in press.
- [208] Zhang XM, Zhang HH, M, Leroth P, Berkowitz RD, Mont MA, Stabin MG, Siegel BA, Alavi A, Barnett TM, Gelb J, Petit C, Spaltro J, Cho SY, **Pomper MG**, Conklin JJ, Bettgowda C, Saha S. [¹²⁴I]FIAU: human dosimetry and infection imaging in patients with suspected prosthetic joint infection. *Nucl Med Biol* 2016; in press.
- [209] Song X, Walczak P, He X, Yang X, Pearl M, Bulte JWM, van Zijl PCM, **Pomper MG**, McMahon MT, Janowski M. Salicylic acid analogues as chemical exchange saturation transfer

MRI contrast agents for the assessment of brain perfusion territory and blood-brain barrier opening after intra-arterial delivery. *J Cereb Blood Flow Metab* 2016; in press.

[210] Azad BB, Chatterjee S, Lesniak WG, Lisok A, Pullambhatla M, Bhujwala ZM, **Pomper MG**, Nimmagadda S. A fully human CXCR4 antibody demonstrates diagnostic utility and therapeutic efficacy in solid tumor xenografts. *Oncotarget* 2016, in press.

[211] Azad BB, Lisok A, Chatterjee S, Poirier JT, Pullambhatla M, Luker GD, **Pomper MG**, Nimmagadda S. Targeted imaging of the atypical chemokine receptor 3 (ACKR3/CXCR7) in human cancer xenografts. *J Nucl Med* 2016, in press.

[212] Coughlin JM, Wang Y, Ambinder E, Ward R, Minn I, Vranesic M, Kim P, Ford C, Higgs C, Hayes L, Schretlen D, Dannals RF, Kassiou M, Sawa A, **Pomper MG**. In vivo markers of inflammatory response in recent onset schizophrenia: A combined study using [¹¹C]DPA-713 PET and analysis of CSF and plasma. *Transl Psychiatry* 2016, in press.

[213] Yang X, Song X, Banerjee SR, Li Y, Byun Y, Liu G, Bhujwala ZM, **Pomper MG**, McMahon MT. Developing imidazoles as CEST MRI pH sensors. *Contrast Media Mol Imaging* 2016, in press.

[214] Lesniak W, Oskolkov N, Song X, Lal B, Yang X, **Pomper M**, Laterra J, Nimmagadda S, McMahon M. Salicylic acid conjugated dendrimers are a tunable, high performance CEST MRI nanoplatform. *Nano Lett* 2016, in press.

[215] Williford J-M, Archang MM, Minn I, Ren Y, Wo M, Vandermark J, Fisher PB, **Pomper MG**, Mao H-Q. Critical Length of PEG Grafts on IPEI/DNA Nanoparticles for Efficient in Vivo Delivery. *ACS Biomater Sci Eng* 2016, in press.

[216] You DG, Deepagan VG, Um W, Jeon S, Son S, Chang H, Yoon HI, Cho YW, Swierczewska M, Lee S, **Pomper MG**, Kwon IC, Kim K, Park JH. ROS-generating TiO₂ nanoparticles for non-invasive sonodynamic therapy of cancer. *Sci Rep* 2016, in press.

[217] Kiess AP, Minn I, Vaidyanathan G, Hobbs RF, Josefsson A, Shen C, Brummet M, Chen Y, Choi J, Koumarianou E, Baidoo K, Brechbiel MW, Mease RC, Sgouros G, Zalutsky MR, **Pomper MG**. (2S)-2-(3-(1-Carboxy-5-(4-[²¹¹At]astatobenzamido)pentyl)ureido)-pentanedioic acid for PSMA-targeted α -particle radiopharmaceutical therapy. *J Nucl Med* 2016, in press.

[218] Subedi M, Minn I, Chen J, Kim Y, Ok K, **Pomper MG**, Byun Y. Design, synthesis and biological evaluation of PSMA/hepsin-targeted heterobivalent ligands. *Eur J Med Chem* 2016, in press.

[219] Ray Banerjee S, Chen Z, Pullambhatla M, Lisok A, Chen J, Mease RC, **Pomper MG**. A preclinical comparative study of ⁶⁸Ga-labeled DOTA, NOTA and HBED-CC chelated radiotracers for targeting PSMA. *Bionconj Chem* 2016, in press.

[220] Bhatnagar A, Rowe SP, Gorin Ma, **Pomper MG**, Fishman EK, Allaf ME. Computed tomography appearance of renal hybrid oncolytic/chromophobe tumors. *J Comput Assist Tomogr* 2016, in press.

[221] Rowe SP, Macura KJ, Mena E, Blackford AL, Nadal R, Antonarakis ES, Eisenberger M, Carducci M, Fan H, Dannals RF, Chen Y, Rease RC, Szabo Z, **Pomper MG**, Cho SY. PSMA-based [¹⁸F]DCFPyL PET/CT is superior to conventional imaging for lesion detection in patients with metastatic prostate cancer. *Mol Imaging Biol* 2016, in press.

[222] Rowe SP, Mana-Ay M, Javadi MS, Szabo Z, Leal JP, **Pomper MG**, Pienta KJ, Ross AE, Gorin MA. PSMA-based detection of prostate cancer bone lesions with 18F-DCFPyL PET/CT: A sensitive alternative to ^{99m}Tc-MDP bone scan and Na¹⁸F PET/CT? *Clin Genitourin Cancer* 2016, in press.

[223] Zhang XM, Zhang HH, McLeroth P, Berkowitz RD, Mont MA, Stabin MG, Siegel BA, Alavi A, Barnett TM, Gelb J, Petit C, Spaltro J, Cho SY, **Pomper MG**, Conklin JJ, Bettegowda C, Saha S. [(124)I]FIAU: Human dosimetry and infection imaging in patients with suspected prosthetic joint infection. *Nucl Med Biol* 2016; 43:273-9.

Publications: Review Articles and Invited Perspectives

- [1] **Pomper MG**. Molecular imaging: An overview. *Acad Radiol* 2001; 8:1141-53.
- [2] **Pomper MG**. Can small animal imaging accelerate drug development? *J Cell Biochem Suppl* 2002; 39:211-20.
- [3] Wasserman BA, Stone JH, Hellmann DB, **Pomper MG**. Are T1- and T2-weighted spin-echo MR images sufficient for the diagnosis of central nervous system vasculitis? *AJR American Journal of Roentgenology* 2002; 179:273-74.
- [4] Wong DF, **Pomper MG**. Predicting the success of a radiopharmaceutical for in vivo imaging of CNS neuroreceptor systems. *Mol Imaging Biol* 2003; 5:350-62.
- [5] **Pomper MG**, Hammoud, DA. Positron emission tomography in molecular imaging: Could the promise of personalized patient care be reaching fruition? *IEEE Eng Med Biol* 2004; 23:28-37.
- [6] Scheffel U, **Pomper MG**. PET imaging of GRP receptor expression in prostate cancer. *J Nucl Med* 2004; 45:1277-78. (Invited perspective)
- [7] Caturegli P, Newschaffer C, Olivi A, **Pomper MG**, Burger PC, Rose NR. Autoimmune hypophysitis. *Endocr Rev* 2005; 26:599-614.
- [8] Zhou J, Neale JH, **Pomper MG**, Kozikowski AP. NAAG Peptidase inhibitors and their potential for diagnosis and therapy. *Nat Rev Drug Discovery* 2005; 4:1015-26.
- [9] Li K, Thomasson D, Ketai L, Contag C, **Pomper M**, Wright M, Bray M. Potential applications of conventional and molecular Imaging to biodefense research. *Clin Infect Dis* 2005; 40:1471-80.
- [10] **Pomper MG**. Translational Molecular Imaging for Cancer. *Cancer Imaging* 2005; 5:S16-S26.
- [11] **Pomper MG**, Lee JS. Small animal imaging in drug development. *Curr Pharm Des* 2005; 3247-72.
- [12] Hammoud DA, Hoffman JM, **Pomper MG**. Neuromolecular imaging: from conventional to emerging techniques. *Radiology* 2007; 245:21-42.
- [13] **Pomper MG**. From the SNM Molecular Imaging Center of Excellence: An Open Invitation. *J Nucl Med* 2007; 48:39N. (Invited perspective)
- [14] **Pomper MG**, Sacktor N. New techniques for imaging HIV-associated cognitive impairment in the era of highly active antiretroviral therapy (HAART). *Arch Neurol* 2007; 64:1233-35.
- [15] Conti PS, McEwan AJ, **Pomper MG**. Molecular imaging: The future of modern medicine. *J Nucl Med* 2008; 49:16N-20N. (Invited perspective)
- [16] **Pomper MG**. From the MICOE: Translating molecular imaging techniques into practical medicine. *J Nucl Med* 2008; 49:34N. (Invited perspective)
- [17] Winnard PT, Pathak AP, Dhara S, Cho SY, Raman V, **Pomper MG**. Molecular imaging of metastatic potential. *J Nucl Med* 2008; 49 Suppl 2:96S-112S.
- [18] Nimmagadda S, Ford EC, Wong JW, **Pomper MG**. Targeted molecular imaging in oncology: focus on radiation therapy. *Semin Radiat Oncol* 2008; 18:136-148.
- [19] Jain SK, Lamichhane G, Nimmagadda S, **Pomper MG**, Bishai WR. Antibiotic treatment of tuberculosis: old problems, new solutions. *Microbe* 2008; 3:285-292.

- [20] Fu D-X, Foss CA, Nimmagadda S, Ambinder RF, **Pomper MG**. Imaging virus-associated cancer. *Curr Pharm Des* 2008; 14:3048-65.
- [21] Zaheer A, Cho SY, **Pomper MG**. New agents and techniques for imaging prostate cancer. *J Nucl Med* 2009; 50:1387-1390.
- [22] Foss CA, Mease RC, Cho SY, Kim HJ, **Pomper MG**. GCP11 imaging and cancer. *Curr Med Chem* 2012; 19:1346-59.
- [23] Bhang HE, **Pomper MG**. Cancer imaging: Gene transcription-based imaging and therapeutic systems. *Int J Biochem Cell Biol* 2012; 44:684-9.
- [24] Barinka C, Rojas C, Slusher B, **Pomper MG**. Glutamate carboxypeptidase II in diagnosis and treatment of neurologic disorders and prostate cancer. *Curr Med Chem* 2012; 19:856-70.
- [25] Sagar D, Foss C, El Baz R, **Pomper MG**, Khan ZK, Jain P. Mechanisms of dendritic cell trafficking across the blood-brain barrier. *J Neuroimmune Pharmacol* 2012; 7:74-94.
- [26] Penet M-F, Chen Z, Kakkad S, **Pomper MG**, Bhujwalla ZM. Theranostic imaging of cancer. *Eur J Radiol* 2012; 81:S124-126.
- [27] Hedvat M, Emdad L, Das SK, Kim K, Dasgupta S, Thomas S, Hu B, Zhu S, Dash R, Quinn BA, Oyesanya RA, Kegelman TP, Sokhi UK, Sarkar S, Erdogan E, Menezes ME, Bhoopathi P, Wang XY, **Pomper MG**, Wei J, Wu B, Stebbins JL, Diaz PW, Reed JC, Pellecchia M, Sarkar D, Fisher PB. Selected approaches for rational drug design and high throughput screening to identify anti-cancer molecules. *Anticancer Agents Med Chem* 2012; 12:1143-55.
- [28] Banerjee S, **Pomper MG**. Clinical applications of Gallium-68. *Appl Radiat Isot.* 2013; 76:2-13.
- [29] Mease RC, Foss CA, **Pomper MG**. PET imaging in prostate cancer: Focus on prostate-specific membrane antigen. *Curr Top Med Chem* 2013; 13:951-62.
- [30] Kiess AP, Cho SY, **Pomper MG**. Translational Molecular Imaging of Prostate Cancer. *Curr Radiol Rep* 2013; 1:216-26.
- [31] Watkins CC, Sawa A, **Pomper MG**. Glia and immune cell signaling in bipolar disorder: insights from neuropharmacology and molecular imaging to clinical application. *Transl Psychiatry* 2014; 4: doi: 10.1038/tp.2013.119.
- [32] Dawidczyk CM, Kim C, Park JH, Russell LM, Lee KH, **Pomper MG**, Searson PC. State-of-the-art in design rules for drug delivery platforms: lessons learned from FDA-approved nanomedicines. *J Control Release* 2014; 187:133-144.
- [33] Minn I, Menezes MD, Sarkar S, Yarlagaadda K, Das SK, Emdad L, Sarkar D, Fisher PB, **Pomper MG**. Molecular-genetic imaging of cancer. *Adv Cancer Res* 2014; 124:131-69.
- [34] **Pomper MG**, Fisher PB, eds. Emerging Applications of Molecular Imaging to Oncology in *Adv Cancer Res* 2014; 124, doi: 10.1016. (Invited perspective)
- [35] Kiess AP, Banerjee SR, Mease RC, Rowe SP, Rao A, Foss CA, Chen Y, Yang X, Cho SY, Nimmagadda S, **Pomper MG**. Prostate-specific membrane antigen as a target for cancer imaging and therapy. *Q J Nucl Med Mol Imaging* 2015; 59:241-68.
- [36] Cho S, Rowe S, Gorin M, Allaf M, Pienta KJ, Tran P, **Pomper M**, Ross A. PET imaging of prostate-specific membrane antigen in prostate cancer – current state of the art and future challenges. *Prostate Cancer Prostatic Dis* 2016, in press.
- [37] Salas Fragomeni RA, Rowe SP, **Pomper MG**. PSMA-targeted imaging: Beyond prostate cancer. *PET Center of Excellence (newsletter), Society of Nuclear Medicine and Molecular Imaging* 2016; 13:1-3.

[38] Gorin MA, **Pomper MG**, Rowe SP. PSMA-targeted imaging of prostate cancer: the bet is yet to come. *BJU Int* 2016; 17:715-6.

Publications: Books and Book Chapters

- [1] **Pomper MG**. Spinal puncture and myelography. In: Eng J, ed. *Manual of radiology: acute problems and essential procedures*. Philadelphia: Lippincott-Raven, 1997:271-75.
- [2] **Pomper MG**. Pulmonary embolism. In: Eng J ed. *Manual of radiology: acute problems and essential procedures*. Philadelphia: Lippincott-Raven, 1997:83-89.
- [3] **Pomper MG** and Port JD. New techniques in MR imaging of brain tumors. In: Bluemke D, ed. *Magn Reson Imaging Clin N Am*. Philadelphia: Saunders, 2000; 8:691-713.
- [4] **Pomper MG**. Functional and metabolic imaging. In: DeVita V, Hellman S, Rosenberg SA, eds. *Cancer: principles and practice of oncology*. Baltimore: Lippincott, Williams & Wilkins, 2000:679-89.
- [5] **Pomper MG** and Port JD. New techniques in MR imaging of brain tumors. In: Drayer B, ed. *Neuroimag Clin N Am* 2001. Philadelphia: Elsevier-Saunders, 11:501-25.
- [6] Gallia GL, **Pomper MG**, Olivi A. Chordoid Glioma of the Third Ventricle. In: Berger MS, Keles GE, eds. *Textbook of Neuro-Oncology*. Philadelphia: Elsevier-Saunders, 2005:218-21.
- [7] Hammoud DA, **Pomper MG**. Central nervous system imaging. In *Oncology: An Evidence-Based Approach*. In: Chang AE, Ganz PA, Hayes DF, Kinsella T, Pass HI, Schiller J, Stone RM, Strecher V, eds. New York: Springer-Verlag, 2006:369-80.
- [8] Tsui BMW, Wang Y, Qi Y, Sawyer S, Frey EC, Majewski S, **Pomper MG**. Feasibility of micro-SPECT/CT imaging of atherosclerotic plaques in a transgenic mouse model. In: Kupinski MA and Barrett HH, eds. *Small Animal SPECT Imaging*. Berlin: Springer, 2005:215-54.
- [9] Nath A, Crain B, Hammoud DA, **Pomper MG**. Brain abscess. In: Joynt RJ and Griggs RC, eds. *Bakers Clinical Neurology*. Baltimore: Lippincott, Williams & Wilkins, 2006.
- [10] *Molecular Imaging in Oncology*. **Pomper MG**, Gelovani JT, eds. New York: Informa Health, 2008. (Book)
- [11] Cho SY, **Pomper MG**. Molecular imaging in prostate cancer. In: **Pomper MG**, Gelovani JT, eds. *Molecular Imaging in Oncology*. New York: Informa Health, 2008.
- [12] Hammoud DA, Jacobs A, **Pomper MG**. CNS molecular imaging. In: Weissleder R, Ross B, Rehemtulla A, Gambhir SS, eds. *Molecular Imaging Principles and Practice*, 2008.
- [13] Byun Y, Mease RC, Babich JW, **Pomper MG**. Recent Development of Therapeutic and Diagnostic Agents Targeting Glutamate Carboxypeptidase II (GCP II) In: Supuran C, ed. Hoboken, N.J. *Drug Design of Zinc-Enzyme Inhibitors*. John Wiley & Sons, 2009.
- [14] Cho SY, **Pomper MG**. Clinical translation of molecular imaging probes. In: Chen S, ed. *Molecular Probes for Cancer Research*. World Scientific Publishing Co, 2010.
- [15] Higgins L, **Pomper MG**. The evolving role of imaging in cancer: current state and future challenges. In: Shim H, Meltzer CC. *Semin Oncol* 2011, 38:3-15.
- [16] Bettgowda C, Byun Y, Foss CA, Sgouros G, Ambinder RF, **Pomper MG**. Imaging infection based on expression of thymidine kinase. In: Welch MJ, Eckelman WC, eds. *Targeted Molecular Imaging*, 2012.

Publications: Conference Records (excluding meeting abstracts)

- [1] Weisenberger AG, Baba JS, Kross B, Gleason SS, Goddard J, Majewski S, Meikle SR, Paulus MJ, **Pomper MG**, Popov V, Smith BL, Welch B, Wojcik. Dual low profile detector heads for a restraint free small animal SPECT imaging system. *Conference Record of the 2004 IEEE Nuclear Science Symposium and Medical Imaging Conference*, Rome, 2004.
- [2] Weisenberger AG, Gleason SS, Goddard J, Kross B, Majewski S, Meikle SR, Paulus MJ, **Pomper M**, Popov V, Smith MF, Welch BL, Wojcik R. A restraint free small animal SPECT imaging system with motion tracking. *IEEE Trans Nucl Sci* 2005; 52:638-644.
- [3] Weisenberger AG, Kross B, Majewski S, McKisson J, Popov V, Proffitt J, Stolin A, Baba JS, Goddard JS, Lee SJ, Smith MF, Tsui B, **Pomper M**. Awake animal SPECT: Overview and initial results. Nuclear Science Symposium Conference Record, 2008. NSS '08. IEEE, vol., no., pp. 5588-5591, 19-25 Oct. 2008, doi: 10.1109/NSSMIC.2008.4774513.
- [4] Cui Y, Lall T, Mahler G, Meinken G, Vaska P, Bolotnikov AE, De Geronimo G, O'Connor P, Camarda G, Hossain A, Kim KH, Yang G, Gul R, Franc B, Johnson T, Seo Y, Rittenboch A, Tsui B, **Pomper M**, Cho S, Weisman K, James RB. Endorectal probe for imaging prostate cancer using CdZnTe multi-pixel arrays. *Proceedings of SPIE* 8508; 2012.

Publications: White Papers and Letters to the Editor

- [1] **Pomper MG**. Recommendation #1: Multidisciplinary centers for molecular/functional imaging research. *NCI Imaging Sciences Working Group* 1998.
- [2] **Pomper MG**. Summary of the meeting of the *in vivo* molecular/functional imaging task force. *NCI Imaging Sciences Working Group* 1998.
- [3] **Pomper MG**, Solomon SB. Imaging sarcomatous transformation in neurofibromatosis. Letter to the editor: *J Neurooncol* 2007; 82:329.
- [4] Kelloff GJ, Sullivan DC, Baker H, Clarke LP, Nordstrom R, Tatum JL, Dorfman GS, Jacobs P, Berg CD, **Pomper MG**, Birrer MJ, Tempero M, Higley HR, Petty BG, Sigman CC, Maley C, Sharma P, Wax A, Ginsberg GG, Dannenberg AJ, Hawk ET, Messing EM, Grossman HB, Harisinghani M, Bigio IJ, Griebel D, Henson DE, Fabian CJ, Ferrara K, Fantini S, Schnall MD, Zujewski JA, Hayes W, Klein EA, DeMarzo A, Ocak I, Ketterling JA, Tempany C, Shtern F, Parnes HL, Gomez J, Srivastava S, Szabo E, Lam S, Seibel EJ, Massion P, McLennan G, Cleary K, Suh R, Burt RW, Pfeiffer RM, Hoffman JM, Roy HK, Wang T, Limburg PJ, El-Deiry WS, Papadimitrakopoulou V, Hittelman WN, MacAulay C, Veltri RW, Solomon D, Jeronimo J, Richards-Kortum R, Johnson KA, Viner JL, Stratton SP, Rajadhyaksha M, Dhawan A; Workshop Program Committee. Workshop on imaging science development for cancer prevention and preemption. *Cancer Biomark* 2007; 3:1-33.
- [5] Kelloff GJ, Choyke P, Coffey DS; Prostate Cancer Imaging Working Group. Challenges in clinical prostate cancer: role of imaging. *AJR Am J Roentgenol* 2009; 192:1455-70.
- [6] **Pomper MG**, Letter to the editor. *Semin Nucl Med* 2009; 39:354.
- [7] Fahey F, Zukotynski K, Jadvar H, Capala J; organizing committee, contributors, and participants of the second NCI-SNMMI Workshop on Targeted Radionuclide Therapy. *J Nucl Med* 2015; 56:1119-29.
- [8] Gorin MA, Rowe SP, Pomper MG. PSMA-targeted Imaging of Prostate Cancer – The Best is Yet to Come. *BJU International*; 2015, in press.

Publications: Other Media

- [1] **Pomper MG.** *Contributor to* – Technical Exhibit to the RSNA: Russell H. Morgan Department of Radiology (1999).
- [2] **Pomper MG.** *Contributor to* – The Johns Hopkins Family Health Book (1999).
- [3] **Pomper MG.** *Molecular Imaging with Positron Emission Tomography*, In: Molecular Imaging DVD (American College of Radiology, 2004).
- [4] **Pomper MG.** *RSNA On-the-Air*, 91st Scientific Assembly and Annual Meeting 2005: Molecular Imaging
- [5] **Pomper MG.** *RSNA On-the-Air*, 92nd Scientific Assembly and Annual Meeting 2006: Molecular Imaging
- [6] **Pomper MG.** Sandler MP. Molecular Imaging Podcast – sponsored by General Electric, 11/06.
- [7] **Pomper MG.** *RSNA On-the-Air*, 93rd Scientific Assembly and Annual Meeting 2006: Molecular Imaging
- [8] **Pomper MG.** Press Conference, Society of Nuclear Medicine 54th Annual Meeting 2007, Washington, DC.

Patents and Patent Applications (status)

- [1] Imaging agents and methods of imaging NAALADase and PSMA (US 7,408,079; 08/05/09); Pomper MG, Zhang J, Kozikowski AP.
- [2] Imaging infection with compounds that bind to thymidine kinase (US 8,691,186; 04/08/14); Pomper MG, Bettgowda C, Foss C, Zhou S, Kinzler K, Vogelstein B.
- [3] Imaging and therapy of virus-associated tumors (EU 2155231; 07/12/12); Pomper MG, Ambinder RF, Liu JK, Chong C.
- [4] Labeled inhibitors of prostate-specific membrane antigen (US 9,044,468; 06/02/15); Pomper MG, Ray S, Mease RC, Foss C.
- [5] PSMA-targeted nanoparticles for therapy of prostate cancer (US 12/744,982; pending); Chandran SS, Ray S, Pomper MG, Denmeade SR, Mease RC.
- [6] PSMA-binding agents and uses thereof (US 8,778,305; 07/15/15); Pomper MG, Mease RC, Chen Y.
- [7] Bioluminescence imaging–based screening assay and inhibitors of ABCG2 (US 14/465,440; pending); Pomper MG, Zhang Y, Laterra J.
- [8] PSMA-targeting compounds and uses thereof (US 9,056,841; 06/16/15); Pomper MG, Mease RC, Ray S, Chen Y.
- [9] Compositions and methods for imaging inflammation (US 8,778,304; 07/15/14); Pomper MG, Wang H, Guilarte TR.
- [10] Targeted cancer therapeutics and diagnostics (US 13/881,777; pending); Pomper MG, Bhang H-Y; Fisher PB.
- [11] PSMA-based theranostic imaging of metastatic cancer (US 14/008,715; pending); Pomper M, Bhujwalla Z, Chen Z, Li C, Nimmagadda S, Penet M-F, Ray S.
- [12] Collagen mimetic peptides for targeted collagen strands for in vitro and in vivo imaging and therapy (US 13/679,431; pending); Yu MS, Li Y, Summerfield D, Wang AY-L, Foss CA, Pomper MG.

- [13] New homomultivalent and heteromultivalent inhibitors of prostate specific membrane antigen (PSMA) (US 14/362,011; pending); Pomper MG, Ray S, Mease RC.
- [14] Synthesis and application of novel IRDye conjugated DPA-713 analogs for imaging inflammation (US 14/385,090; pending); Pomper MG, Wang H, Foss CA.
- [15] Bacteria-specific labeled substrates as imaging biomarkers to diagnose, locate and monitor infections (US 14/427,774; pending); Jain SK, Pomper MG, Weinstein EA, Ordonez A, Klunk M.
- [16] Red fluorescent aldehyde dehydrogenase (ALDH) substrate (US 14/767,195; pending); Pomper MG, Wang H, Minn I, Leach SD, Mease RC.
- [17] Radioactive aldehyde dehydrogenase (ALDH) substrates (US 14/777,117; pending); Pomper MG, Wang H, Minn I, Mease RC.
- [18] Development and use of [32P]pyrophosphate and [32P]monophosphate as potential human anti-cancer therapeutics (PCT/US2014/044604; pending); Abraham JM, Cheng Y, Pomper MG, Meltzer SJ.
- [19] Salicylic acid and its analogs for MRI contrast (WO 2014/186737; 11/20/14); Yang X, Song X, Ray S, Pomper MG, McMahon MT.
- [20] Azole heterocycles for MRI contrast and pH sensing (WO 2014/182538; 11/13/14); Yang X, Song X, Ray S, Pomper MG, McMahon MT.
- [21] Prostate-specific membrane antigen-targeted photosensitizers for photodynamic therapy (PCT/US2014/060461; pending); Pomper MG, Mease R, Chen Y.
- [22] Tripartite cancer theranostic viruses (WO 2014/197598; 12/11/14); Fisher PB, Das SK, Menezes ME, Sarkar D, Pomper MG.
- [23] PEG-prom mediated surface expression of avidin/streptavidin (WO 2014/197599; 12/11/14); Fisher PB, Das SK, Menezes ME, Sarkar D, Pomper MG.
- [24] New scaffolds and multifunctional intermediates for imaging PSMA (PCT/US2015/056909; pending); Mease RC, Yang X, Pomper MG.
- [25] Synthesis and use of targeted radiation enhancing iron oxide-silica-gold nanoshells for imaging and treatment of cancer (PCT/US2014/064587; pending); Ivkov R, Woodard L, Pomper MG.
- [26] Radioligand for nicotinic acetylcholine receptor subtype 7 (alpha7-nAChR) (US 14/622,373; pending); Gao Y, Horti A, Mease RC, Kellar K, Finley P, Pomper MG, Dannals RF, Wahl RL.
- [27] PSMA-based molecular-genetic reporter system (PCT/US2015/021233); Pomper MG, Castanares M, Minn I, Lupold S.
- [28] Prostate-specific membrane antigen targeted magnetic resonance (MR) contrast agents for molecular imaging of prostate cancer (PCT/US2015/029504; pending); Ray S, Pomper MG, Meade TJ, Mease RC, Chen Y, Yang X.
- [29] Reversible PEGylation for screening of therapeutic proteins in vivo (PCT/US2015/034504; pending); Lee S, Oh Y, Pomper MG, Swierczewska M.
- [30] Light-emitting versions of the monoclonal antibody to C3d (mAB 3d29) for imaging (US 62/050,568; pending); Pomper MG, Foss CA, Thurman J, Holders VM.
- [31] Compositions of nucleic acid-containing nanoparticles for delivery in vivo (US 62/161,546; pending); Mao H-Q, Minn I, Williford J-M, Santos J, Archange M, Pomper M, Ren Y.
- [32] Radiofluorinated 7-Amino-5-thio-thiazolo[4,5-d]pyrimidines for fractalkine receptor (CX3CR1) PET imaging (US 62/172,547; pending); Pomper MG, Mease RC, Yang X, Foss CA.
- [33] Method/platform of sensitizing cells to TRAIL-induced apoptosis (US 62/134,674; pending); Pomper MG, Lee S, Oh Y, Swierczewska M.

- [34] A preclinical comparative study of ⁶⁸Ga-labeled DOTA, NOTA and HBED-CC chelated PSMA-targeted radiotracers (US 62/132,955; pending); Pomper MG, Mease RC, Banerjee SR.
- [35] Nuclear imaging and radiotherapeutics agents targeting carbonic anhydrase IX (US 62/169,338; pending); Minn I, Pomper MG, Allaf M, Mease R, Ray S, Rowe S, Yang X, Gorin M.
- [36] PSMA targeted radiohalogenated ureas for cancer radiotherapy (US 62/245,022; pending); Pomper MG, Mease RC, Chen Y, Banerjee SR, Zalutsky M, Vaidyanathan G.
- [37] PAMAM dendrimer based CEST imaging agents (US 62/246,998; pending); Lesniak W, Nimmagadda S, Oskolkov N, McMahon MT, Song X, Pomper MG.
- [38] Prostate-specific membrane antigen targeted plasmon-enhanced Raman spectroscopy reporters for molecular imaging of prostate cancer (US 62/259,131; pending); Pomper M, Ray S, Barman I, Li M.
- [39] Sensitizing cancer to long-acting TRAIL receptor agonists with kinase inhibitors (US 62/280,222; pending); Pomper M, Lee S, Oh Y, Swierczewska M.
- [40] Ameliorating systemic sclerosis with death receptor agonists (US 62/268,637; pending); Pomper M, Horton M, Lee S, Oh Y, Swierczewska M, Park J-S.
- [41] Glucose conjugates of triptolide and analogs and their use thereof (US 62/291,416; pending); Minn I, Liu J, Pomper M, He Q, Yu B, Wang Q.

Extramural Funding (as PI or co-PI only, excluding co-I or sub-awards; estimated annual direct costs provided)

Active

CTS, Inc.	04/01/2015-10/31/2016 (\$229,072) Plasmid selection and characterization; Particle formulation and in vivo validation
Stabler Foundation	01/01/2016-12/31/2018 (\$105,000) Imaging inflammation
NIH R01CA138636	04/01/2010-02/29/2016 (NCE) BETR therapy for Herpesvirus-associated Tumors
NIH R01CA184228	05/01/2014-04/30/2019 (\$339,805) Small-molecule PSMA-targeted alpha therapy
NIH U54CA151838	08/25/2010-07/31/2016 (NCE) Center of Cancer Nanotechnology Excellence at Johns Hopkins
NIH U01CA183031	07/14/2015-06/30/2018 (\$496,642) PSMA directed imaging of prostate cancer: Focus on androgen receptor dynamics
NIH R33AG037298	09/15/2012-05/31/2016 (NCE) Extrathalamic nAChR-PET for imaging neurodegeneration
NIH R01CA134675	09/09/2015-08/31/2020 (\$354,182) High-specificity imaging agents for aggressive prostate cancer
NIH P50CA058236	09/01/2014-08/31/2019 (\$289,711) SPORE in prostate cancer: Project 1 – PEG-Prom mediated theranostics for prostate cancer
NIH R44CA177247	09/01/2014-02/27/2017 (\$700,000)

NIH SBIR HHSN2612015 00073C	Clinical development of 18F PET tracer for imaging VEGF receptors 09/30/2015-03/29/2018 (\$920,000) Systemic radionuclide therapy targeted to VEGF receptors in tumor neovasculature
W81XWH-12-1-0556	09/30/2012 – 09/29/2016 (\$118,124) Imaging prostate cancer microenvironment by collagen hybridization
W81XWH-14-1-0620	09/29/2014-09/28/2017 (\$389,987) Direct test for neuroinflammation with [¹¹ C]DPA-713-PET scanning
W81XWH-14-1-0430	09/15/2014-03/14/2016 (NCE) Promoter-based theranostics for prostate cancer
Korea Inst. of Science	09/01/2013-08/31/2016 (\$97,088) Epigenetic molecular editing technology for cancer targeted drug delivery
Prostate Cancer Found.	01/01/2014-12/31/2015 (\$115,900) Movember GAP2 Initiative: Integrated 18F-labeled PSMA project
<i>Completed</i>	
GE/NFL Head Health	07/22/2014-07/21/2015 (\$300,000) Methods for diagnosis and prognosis of mild traumatic brain injuries
NIH R01EB009367	05/15/2010-04/30/2015 (\$268,616) TK-based infection imaging
NIH R01CA134675	04/01/2009-03/31/2015 (\$204,500) PSMA-based cancer imaging agents
NIH G2ORR031203	04/01/2010-03/31/2015 (\$1,400,005) Renovation for the JHBMC Translational Molecular Imaging Center Core Facility (PI: Hellman; Author: Pomper)
Morphotek, Inc.	08/29/2013-02/28/2015 (\$17,777) Radiolabeled TM801
Prostate Cancer Found.	10/15/2012-10/15/2014 (\$500,000) Promoter-driven molecular radiotherapy for prostate cancer
TEDCO Maryland	07/01/2012-06/30/2014 (\$100,000) New ALDH-based imaging agents for stem cells
NIH MH080580	07/01/2007-08/31/2013 (\$204,725) GCPII-based brain imaging agents
Avid Radiopharm.	05/16/2012-05/15/2013 (\$145,000) New imaging agents for the prostate-specific membrane antigen
NIH R01EB009367-02S	05/16/2011-04/30/2013 (\$17,500) Bench to bedside supplement
Osiris Therapeutics	09/23/2010-04/01/2013 (\$6,430) Golden mesenchymal stem cell study
NIH U24CA92871	03/01/2007-02/29/2013 (\$284,808) Small Animal Imaging Resource (SAIR)
NFL Charities	01/01/2011-10/15/2012 (\$100,000)

	Imaging neuro-inflammatory pathways in NFL players with impairment
NIH R21CA131702	04/01/2009-03/31/2012 (\$121,000)
	Alpha methyl acylcoa racemase (AMACR)
AdMeTech	08/01/2009-07/31/2011 (\$45,454)
	GCPII-based inhibitors for imaging prostate cancer
Lupus Foundation	10/01/2010-09/30/2011 (\$100,000)
	Imaging microglial activation in neuropsychiatric lupus
NIH R21EB005324	09/15/2005-08/31/2010 (\$189,507)
	PSMA-based gene reporter-probe system
TEDCO Maryland	07/01/2008-06/30/2010 (\$100,000)
	Stem cell probe discovery <i>via</i> bioluminescence
NIH R21CA1114111	05/01/2006-04/30/2008 (\$104,500)
	PSMA-based SPECT tracers for prostate cancer imaging
NIH R21CA111982	04/07/2006-03/31/2008 (\$104,500)
	PSMA-based PET ligands for prostate cancer imaging
Dana Foundation	01/01/2006-12/31/2008 (\$50,000)
	Brain and Immuno-Imaging Innovations
DOD PC050825	12/01/2005-11/03/2007 (\$132,144)
	PSMA-based PET ligands for prostate cancer imaging
NIH R21MH076591	09/30/2005-05/31/2007 (\$129,230)
	Imaging serotonergic transmission in HIV depression
NIH R24CA92871	08/27/2001-12/31/2007 (\$715,645)
	Small animal imaging resource program (SAIRP)
AdMeTech	08/08/2005-09/07/2007 (\$22,397)
	GCP-II-based inhibitors for imaging prostate cancer
AstraZeneca Pharma.	12/16/2004-12/15/2006 (\$164,027)
	Compound development for [¹⁸ F]M665017
Jefferson Laboratories	03/04/2004-03/08/2006 (\$29,407)
	Small animal imaging system evaluation
Jefferson Laboratories	01/01/2006-12/31/2006 (\$18,377)
	Small animal imaging system assistance
AstraZeneca Pharma.	04/01/2004-06/30/2005 (\$46,300)
	Development of alpha-7 nicotinic cholinergic radiopharmaceuticals
NIH R01MH61438	09/28/1999-05/31/2003 (\$254,377)
	CNS metabolic correlates of HIV dementia by MRS imaging
NIH R13CA94269	09/01/2001-08/31/2002 (\$8,000)
	High resolution imaging in small animals
Guilford Pharma.	11/17/1997-09/01/1999 (\$2,312)
	MRI and CT appearance of the surgical bed in brain tumor patients
NARSAD	07/01/1997-10/01/1999 (\$27,870)
	The glutamate hypothesis of schizophrenia
A. Stewart Trust Fund	07/01/1998-06/30/1999 (\$30,000)
	Radiolabeled NAALADase inhibitors as imaging agents for prostate cancer

RSNA 07/01/1996-06/30/1998 (\$55,000)
Radiolabeled nitric oxide synthase inhibitors
Am. Health Asst. Found. 04/01/1988-03/31/1990 (\$125,000)
Imaging hippocampal corticosteroid receptors: An early marker for
Alzheimer's dementia (PI: Katzenellenbogen; Author: Pomper)

Johns Hopkins Intramural funding (completed)

Sol Goldman Found. 01/01/2013-12/31/2013 (\$50,000)
Promoter-based imaging of pancreatic cancer
Patrick C. Walsh Found. 01/01/2013-12/31/2013 (\$100,000)
[¹⁸F]DCFpyL: A new positron-emitting imaging agent for prostate
cancer
Patrick C. Walsh Found. 04/01/2006-03/31/2007 (\$75,000)
First clinical study with a small molecule PSMA-based agent for PET
Johns Hopkins Alliance 01/01/2006-12/31/2006 (\$48,500)
Imaging bacterial infections with radiolabeled FIAU
Heme SPORE Supp. 04/01/2004-03/31/05 (\$62,400)
Molecular radiotherapy for human gammaherpesvirus-associated
tumors
JHU CFAR 05/01/2002-04/30/2003 (\$50,000)
Probing the mechanism of Parkinsonism in AIDS dementia by imaging
dopaminergic transmission
ACS IRG 10/01/1996-09/30/1998 (\$10,000)
Metabolic imaging of brain tumors: Focus on patients with AIDS
Wm. Gatewood Found. 11/01/1995-10/30/1996 (\$5,000)
Radiolabeled nitric oxide synthase inhibitors as potential *in vivo*
probes for cerebrovascular regulation

NIH Contracts for Clinical Translation

NCI Development of Clinical Imaging Drug Enhancers (DCIDE) program:
[¹⁸F]DCFBC for imaging prostate cancer (2006)

NIH Toxicologic Evaluation of Novel Ligands Program:
Intravenous toxicity studies of DPA-713 in Sprague-Dawley rats (2008)
Intravenous toxicity studies of A836339 in Sprague-Dawley rats (2014)

EDUCATIONAL ACTIVITIES

Teaching

Classroom Instruction

University of Illinois at Urbana-Champaign:

Chemistry 101 (Introductory Chemistry – teaching assistant)

Lecture/discussion format, four days/week, two one-hour sessions/day

First Semester: Fall 1982, 1983, 1984

Second Semester: Spring 1983, 1984, 1985

Chemistry 391 (New Drugs – teaching assistant)

Exam preparation/course work grading format

First Semester: Fall 1986, 1987

Second Semester: Spring 1987, 1988

Johns Hopkins University School of Medicine:

Pharmacology Core Curriculum

Lecture/discussion format to MSI or MSII class

Fall 2004-present (annual)

Pharmacology Tutorials

Lecture/discussion format to medical or graduate students

Spring 2006-present (five sessions annually)

Johns Hopkins University Whiting School of Engineering:

670.619 Physics and Chemistry of Nanomaterials

Lecture/discussion format to undergraduate students

Fall 2014-present (annual)

Clinical Instruction

Johns Hopkins University School of Medicine:

Radiology Elective (for medical students)

Monthly lecture, 1992-2002

Neuroradiology Core Curriculum (for residents and fellows)

Annual lecture, 1995-2014

Neurosurgery Resident Oral In-service Examination

Annually, 1997, 1998, 2000, 2004, 2005

Neuroradiology Division Medical Student Coordinator

2001-2007

Continuing Medical Education, Division of Neuroradiology

Annually, 1999-2010

Nuclear Medicine and Molecular Imaging Residency Program

Co-developer of a new dual (radiology/nuclear medicine) track – first in the US

2015-

Mentoring (co-mentors are indicated)

Trainees – Informal and Rotating Students/Visitors (first year of contact; peer-reviewed co-publications in brackets, unless otherwise specified; co-publications are noted only at first mention of mentee in lists below)

- Andrea Thieme (undergraduate student of Dr. John Katzenellenbogen, University of Illinois at Urbana-Champaign, 1987) [4] [7]
- Monica Kochanny (graduate student of Dr. John Katzenellenbogen, University of Illinois at Urbana-Champaign, 1988) [7]; current position: Director, Project Management at Gilead Sciences
- Chris Constantinides (graduate student of Dr. Paul Bottomley, Johns Hopkins University School of Medicine, 1996) [11] [22]
- Amy Ho (medical student, Johns Hopkins University School of Medicine, 1997) [26]
- Melinda Turner (medical student, Johns Hopkins University School of Medicine, 2002)
- Sujung Park (undergraduate student, Johns Hopkins University, 2003)
- Aaron LeBeau (rotating graduate student, Johns Hopkins University School of Medicine, 2003) [82]; current position: Assistant Professor of Pharmacology, University of Minnesota Medical School
- Michael Allen (rotating graduate student, Johns Hopkins University School of Medicine, 2003)
- Dima Hammoud, M.D. (clinical fellow, Johns Hopkins University School of Medicine, 2004) [26] [45] [62] [81] [90] [100] [108] [120]; reviews: [5] [12]; book chapters: [7] [9]; current position: Tenure Track Investigator, Radiology and Imaging Sciences, NIH Clinical Center
- Anku Chander (medical student, Johns Hopkins University School of Medicine, 2004) [45]
- Sori Lee (undergraduate student, McMaster University, 2004)
- Joyce Rollor (undergraduate student, Tufts University, 2004)
- Calvin Moh (undergraduate student, Johns Hopkins University, 2004)
- Kevin Khater, M.D. (clinical fellow, Johns Hopkins University School of Medicine – with Dr. Theodore DeWeese, 2004)
- Michael Freitag (graduate student, Universitaet Bremen, 2005)
- Alisa Walz-Flannigan, Ph.D. (postdoctoral fellow, Johns Hopkins University School of Medicine – with Dr. Benjamin Tsui, 2005)
- Natalia Zarzhevsky, M.D., Ph.D. (visiting resident, University of Michigan School of Medicine, 2005)
- Linda Chu (medical student, Johns Hopkins University School of Medicine, 2005)
- Lisa Philipose (medical student, Johns Hopkins University School of Medicine, 2005)
- Jianhua Yu (graduate student, Johns Hopkins University School of Medicine – with Dr. Benjamin Tsui, 2005) [63] [89] [92] [109] [112]; current position: PET/MR Lead System Designer, GE Healthcare
- Keng Fai Kwok (graduate student, Johns Hopkins University School of Medicine – with Dr. Benjamin Tsui, 2005) [72]
- Andrea Benedict (rotating graduate student, Johns Hopkins University School of Medicine, 2006)

- Zhongyu Zhou (rotating graduate student, Johns Hopkins University School of Medicine, 2006)
- Aditya Jain (graduate student, Johns Hopkins University Bloomberg School of Public Health, 2007)
- Alison Tsao (undergraduate student, Johns Hopkins University, 2006) [73]
- Jeffrey Neal (undergraduate student, Johns Hopkins University, 2006) [57]
- Benjamin Tsai (undergraduate student, Johns Hopkins University, 2007)
- Nia White (rotating graduate student, Johns Hopkins University School of Medicine, 2007)
- JP Yu, Ph.D. (visiting postdoctoral fellow, University of Illinois at Urbana-Champaign, 2007)
- Crystal Watkins, M.D., Ph.D. (clinical postdoctoral fellow, Johns Hopkins University School of Medicine, 2008) [122] [128] [158]; reviews: [31]; current position: Assistant Professor, Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine
- Jennifer Coughlin, M.D. (clinical postdoctoral fellow, Johns Hopkins University School of Medicine, 2010) [122] [139] [158] [181] [182] [192] [212]; current position: Assistant Professor, Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine
- Mona Mohamed, M.D., Ph.D. (clinical postdoctoral fellow, Johns Hopkins University School of Medicine, 2007) [86] [96] [98] [142] [151] [164]; current position: Assistant Professor of Radiology and Radiological Science, Johns Hopkins University School of Medicine
- Ovsev Uzuner, M.D. (clinical postdoctoral fellow, Johns Hopkins University School of Medicine, 2007) [58] [81] [90]; current position: Neuroradiology/Nuclear Medicine Physician at Signet Diagnostic, Jacksonville, FL
- David Bonekamp, M.D., Ph.D. (resident, Johns Hopkins University School of Medicine, 2008)
- Kenneth Gage, M.D., Ph.D. (resident, Johns Hopkins University School of Medicine, 2008) [93] [122] [127] [158] [175]; current position: Assistant Professor of Radiology, Moffitt Cancer Center, Tampa, FL
- Emily Wood (graduate student, Johns Hopkins University School of Medicine, 2008)
- David Chien, M.D. (resident, Johns Hopkins University School of Medicine, 2008)
- Sumera Ali, M.B.B.S. (visiting physician from Aga Khan University, Kirachi, Pakistan. 2009)
- Vedica Sharma (undergraduate student, University of Missouri, 2009)
- Alexander Falk (undergraduate student, University of Maryland, 2010) [149]; current position: graduate student in Molecular Structure and Signaling, University of Southern California
- Cara Morin, Ph.D. (medical student. University of Maryland, 2010)
- Amy Hung (high school student, Dulaney High School, MD, 2010)
- Collin Torok, M.D. (resident, Johns Hopkins University School of Medicine, 2010) [132]; current position: Interventional Neuroradiology Fellow at Massachusetts General Hospital

- Saikrishna Suraparaju (medical student, N.T.R. University of Health Sciences, Andhra Pradesh, India – with Dr. Sridhar Nimmagadda, 2010)
- Bhagya Arikala (high school student, Ridge High School, NJ, 2010)
- Sai Krishna Surapa Raju (medical student, N.T.R. University of Health Sciences, Andhra Pradesh, India, 2010)
- Luke Higgins, M.D., Ph.D. (resident, Johns Hopkins University School of Medicine, 2010) [143]; book chapters: [15]; current position: Interventional Radiology Fellow, Stanford University School of Medicine
- Melanie Shimano (undergraduate student, Johns Hopkins University, 2010) [139]; current position: Co-founder/CEO at Clean Air Pillow, LLC
- Jamie Edwards (undergraduate student, Johns Hopkins University, 2010) [139]
- Ashley Adams (undergraduate student, Johns Hopkins University, 2010, 2012) [158] [182]; current position: medical student at Duke University School of Medicine
- Samad Fakhar (high school student, Dulaney High School, MD – with Dr. Sridhar Nimmagadda, 2010, 2012)
- Pin Husan Lee (undergraduate student, Johns Hopkins University, 2010)
- Areeb Chater (undergraduate student, Johns Hopkins University, 2010, 2013)
- Seon Hye Won (medical student, Ewha Woman’s University, Seoul, South Korea, 2010)
- Shuangchao Ma (graduate student, Johns Hopkins University, 2011) [158] [182]; current position: graduate student in Cancer Biology and Genomics at the University of Southern California
- Stephanie Ekey (undergraduate student, Georgia State University, 2011)
- Mohammed Mohiuddin (undergraduate student, University of Maryland at College Park, 2011)
- Sauradeep Sinha (undergraduate student, University of Maryland at College Park, 2011, 2012)
- Vishwa Kundoor (medical student, Andhra University, India – with Dr. Sridhar Nimmagadda, 2011)
- Kushal Byatnal (high school student, Dulaney High School, MD – with Dr. Sridhar Nimmagadda, 2011)
- Shouri Vedati (high school student, Dulaney High School, MD – with Dr. Sridhar Nimmagadda 2011, 2012)
- Ulyana Lisok (undergraduate student, City College of Baltimore, 2011)
- Brianna Walker (undergraduate student, Cornell University, 2011)
- Katrina Lee (undergraduate student, Johns Hopkins University, 2011)
- Cinthya Garcia (undergraduate student, Johns Hopkins University, 2011) [182]; current position: master’s program in hospital administration, University of North Carolina at Chapel Hill
- Katilyn Coleman (undergraduate student, Johns Hopkins University, 2012)
- Aida Ver Ploeg (undergraduate student, Johns Hopkins University, 2012)
- Pin Hsuan Lee (undergraduate student, Johns Hopkins University – with Dr. Sridhar Nimmagadda, 2012)
- Arpita Shah (undergraduate student, Johns Hopkins University – with Dr. Sridhar Nimmagadda, 2012)
- Alex Jacobs (undergraduate student, University of Illinois at Urbana-Champaign, 2012)

- Ravali Yanamaddi (high school student, Dulaney High School, MD, 2012)
- Kyra Levy (undergraduate student, Johns Hopkins University, 2012).
- Monique Sarquis (undergraduate student, Johns Hopkins University, 2012)
- Rebecca Kraut (undergraduate student, University of Maryland, 2012)
- Hwan Mee Yong (volunteer – Johns Hopkins University, 2012)
- Cecilia Higgs (Clinical Research Assistant, Johns Hopkins University School of Medicine, 2012) [181] [182] [212]
- Pearl Kim (undergraduate Student, 2011; Clinical Research Assistant, 2012) [158] [181] [182]; current position: master’s program in Medical Science at Boston University
- Borja Barrera Cuesta (visiting postdoctoral researcher, University of León, Spain, 2012)
- Arpita Shah (undergraduate student, Johns Hopkins University, 2012)
- Carlos Malamut, Ph.D. (Senior Scientist, CDTN, Belo Horizonte, Brazil, 2013)
- Baiqi Wang, Ph.D. (visiting scholar, Tianjun Medical University, P.R. China, 2013)
- Suresh Kevin Nayar (medical student, Johns Hopkins University School of Medicine, 2013) [165]
- Areli Lopez Buhanda (rotating graduate student, Johns Hopkins University School of Medicine, 2013)
- Hugh Giovinazzo, Ph.D. (rotating graduate student, Johns Hopkins University School of Medicine, 2013)
- Susanne Lutje (exchange graduate student, Radboud University, Nijmegen, Netherlands, 2013)
- Keerthi Yarlagadda (undergraduate student, University of Maryland Baltimore County, 2013) [187] [33]
- Yoonhae Nam (nursing student, Dankook University, Seoul, Korea, 2013)
- Nathaniel Shalom (medical Student, Johns Hopkins University School of Medicine, 2013); current position: inaugural student to the combined Radiology/Molecular Imaging Residency Program, Johns Hopkins University School of Medicine
- Zhengping Chen, Ph.D. (visiting scholar, Jiansu Institute of Nuclear Medicine, P.R. China, 2013)
- Steven Rowe, M.D., Ph.D. (resident, Johns Hopkins University School of Medicine, 2013) [175] [186] [191] [195] [196] [198] [200]; reviews: [35] [36] [37]; book chapters: [8]; patents: [35]; current position: resident in Nuclear Medicine and Molecular Imaging, Johns Hopkins University School of Medicine (as of July 1, 2016, Assistant Professor of Radiology, Johns Hopkins University School of Medicine)
- Ana Kiess, M.D., Ph.D. (clinical fellow, Duke University School of Medicine, 2013) [178] [179]; reviews: [30] [35]; current position: Assistant Professor of Radiation Oncology and Molecular Radiation Sciences, Johns Hopkins University School of Medicine
- Raag Airan, M.D., Ph.D. (resident, Johns Hopkins University School of Medicine, 2014) [182]; (as of July 1, 2016, Assistant Professor of Radiology, Stanford University School of Medicine)
- Matt Yanker (undergraduate student, University of Maryland Baltimore County, 2014)
- Elizabeth Horti (undergraduate student, University of Maryland Baltimore County, 2014)
- Camila Gadens Zamboni (visiting postdoctoral researcher, University of São Paulo School of Medicine, 2014)

- Karina Nieves Torres (rotating graduate student, Johns Hopkins University School of Medicine, 2014)
- Hye Soo Lee (research intern, Johns Hopkins University School of Medicine, 2015) [195]
- Jae Sul (research intern, Johns Hopkins University School of Medicine, 2015)
- William Lewis (undergraduate student, Rensselaer Polytechnic Institute, 2015)
- Benito Alvarez (undergraduate student, Johns Hopkins University, 2015)
- Haziq Sidiqi (undergraduate student, Johns Hopkins University, 2015)
- Xin Li, M.D. (visiting scholar, Shandong University, P.R. China, 2015)
- Collette Shen, M.D. (resident, Johns Hopkins University School of Medicine, 2015)
- Michael Cole (medical student, Johns Hopkins University School of Medicine, 2015)
- Emily Ambinder, M.D. (resident, Johns Hopkins University School of Medicine, 2015) [212]
- Kwangmeyung Kim, Ph.D. (visiting scholar, Korea Institute of Science and Technology, 2015) [173] [194] [206] [216]
- Albert Bui (undergraduate student, Ohio Northern University, 2015)
- Jian Chen, Ph.D. (visiting scholar, Fudan University, P.R. China, 2016)

Trainees – Postdoctoral Fellows

- Bonaventure Ngu, M.D. (RSNA Scholar, University of Maryland School of Medicine – with Dr. Dean Wong, 1997)
- Mahaveer Degaonkar, Ph.D. (Johns Hopkins University School of Medicine, 2001) [31] [38] [43] [86] [98]; current position: AVP at Reliance Industries, LTD, Mumbai
- Karen Bleich, M.D. (Holman Pathway fellow, University of Maryland School of Medicine, 2000) [28]
- Jae Sung Lee, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Dean Wong, 2002) [56]; reviews: [11]; current position: Associate Professor in Nuclear Medicine, Seoul National University Hospital
- Catherine Foss, Ph.D. (Johns Hopkins University School of Medicine, 2003) [35] [40] [42] [44] [46] [53] [54] [58] [60] [62] [64] [67] [69] [71] [75] [79] [85] [106] [110] [114] [118] [130] [132] [140] [144] [145] [149] [152] [156] [161] [165] [172] [178] [184] [185] [189] [190] [199] [203]; reviews: [20] [22] [25] [29] [35]; book chapters: [16]; patents: [2] [4] [12] [14] [30] [32]; current position: Assistant Professor of Radiology, Johns Hopkins University School of Medicine
- Yuchuan Wang, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Benjamin Tsui, 2004) [33] [35] [40] [52] [68] [73] [145] [157] [158] [160] [170] [180] [182] [184] [185] [203] [212]; book chapters: [8]; current position: Assistant Professor of Radiology, Johns Hopkins University School of Medicine
- Sen Wang, Ph.D. (Johns Hopkins University School of Medicine, 2004)
- Haofan Wang, Ph.D. (Johns Hopkins University School of Medicine, 2005) [84] [91] [101] [107] [138] [152] [154] [163] [181] [187] [189]; patents: [9] [14] [16] [17]; current position: staff fellow at the US FDA
- Sridhar Nimmagadda, Ph.D. (Johns Hopkins University School of Medicine, 2005) [58] [69] [73] [76] [77] [83] [93] [94] [95] [105] [106] [110] [114] [117] [118] [131] [133] [141] [144] [149] [153] [156] [166] [183] [185] [195] [203] [207] [210] [211] [214]; reviews:

- [18] [19] [20] [35]; patents: [11] [37]; current position: Associate Professor of Radiology, Johns Hopkins University School of Medicine
- Susanne (Hemker) Bonekamp, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Benjamin Tsui, 2005) [181]
 - Ying Chen, Ph.D. (Johns Hopkins University School of Medicine, 2006) [69] [70] [88] [118] [129] [160] [171] [178] [186] [203]; reviews: [35]; patents: [6] [8] [21] [28] [36]; current position: Assistant Professor of Radiology, Johns Hopkins University School of Medicine
 - Youngjoo Byun, Ph.D. (Johns Hopkins University School of Medicine, 2006) [67] [69] [70] [80] [88] [91] [95] [114] [115] [118] [126] [129] [138] [146] [149] [159] [163] [206] [213]; book chapters: [13] [16]; current position: Associate Professor, College of Pharmacy, Korea University
 - Surajit Dhara, Ph.D. (Johns Hopkins University School of Medicine, 2007) [88] [102]; reviews: [17]; current position: Visiting Investigator at the Memorial Sloan-Kettering Cancer Center
 - Hyeyun Jung, Ph.D. (Johns Hopkins University School of Medicine, 2010) [144]
 - Ravindra De Silva, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Sridhar Nimmagadda, 2010) [105] [166]; Staff Scientist, Center for Probe Development and Commercialization, Toronto
 - Lauren Woodard, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Sridhar Nimmagadda, 2010) [166]; patents: [25]; current position: Chemist at US FDA
 - Carrie Bhang, Ph.D. (Johns Hopkins University School of Medicine, 2011) [91] [102] [103] [116] [174]; reviews: [23]; patents: [10]; current position: Investigator II, Oncology Pharmacology at Novartis
 - IL Minn, Ph.D. (Johns Hopkins University School of Medicine, 2011) [163] [169] [170] [178] [187] [195] [212] [215]; reviews: [33]; patents: [16] [17] [27] [31] [35] [41]; current position: Instructor in Radiology, Johns Hopkins University School of Medicine
 - Hassan Shallal, Ph.D. (Johns Hopkins University School of Medicine, 2011) [119] [155] [183]
 - Babak Behnam Azad, Ph.D. (Johns Hopkins University School of Medicine, 2011) [166] [183] [184] [207] [210] [211]
 - Xing Yang, Ph.D. (Johns Hopkins University School of Medicine, 2012) [148] [162] [163] [169] [195] [203] [209] [213] [214]; reviews: [35]; patents: [19] [20] [24] [28] [32] [35]; current position: Assistant Professor of Radiology, Johns Hopkins University School of Medicine
 - Mark Castanares (Johns Hopkins University School of Medicine, 2012) [67] [69] [70] [160] [171] [199]; patents: [27]; current position: Research Scientist at Eli Lilly
 - Tae Hyung Kim, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2012) [146] [194] [206]
 - Yumin Oh, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2013) [146] [194] [206]; patents: [29] [33] [39] [40]
 - Magdalena Swierczewska, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2013) [146] [173] [194] [206] [216]; patents: [29] [33] [39] [40]
 - Samit Chatterjee, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Sridhar Nimmagadda, 2013) [189] [207] [210] [211]

- Ben Copeland, Ph.D (Johns Hopkins University School of Medicine, 2014) [199]
- Akrita Bhatnagar, Ph.D. (Johns Hopkins University School of Medicine, 2014) [170]
- Jong Sung Park, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2014) [206]
- Jiyeong Jang, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2015)
- Sangmin Lee, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2015)
- Jinhee Na, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Seulki Lee, 2015)
- Pravin Bhansali, Ph.D. (Johns Hopkins University School of Medicine – with Dr. Sridhar Nimmagadda, 2015)
- Hye-Hyun Ahn, Ph.D. (Johns Hopkins University School of Medicine – with Dr. IL Minn, 2015)
- Vivek Kumar, Ph.D. (Johns Hopkins University School of Medicine, 2015)

Trainees – Current Graduate Students

- Stephanie Slania (Department of Biomedical Engineering)

Junior Research Faculty

- Ronnie Mease, Ph.D. (associate professor, 2003-) [40] [60] [65] [67] [69] [70] [82] [84] [88] [91] [95] [101] [107] [111] [114] [115] [118] [119] [123] [127] [129] [138] [145] [149] [155] [156] [160] [163] [166] [168] [170] [171] [172] [175] [178] [185] [186] [188] [189] [195] [198] [203]; reviews: [22] [29] [35]; book chapters: [13]; patents: [4] [5] [6] [8] [13] [16] [17] [21] [24] [26] [28] [32] [34] [35] [36]
- Christopher Endres, Ph.D. (assistant professor, 2004-2012) [45] [58] [78] [81] [90] [108] [120] [122] [127] [144] [145] [154] [158]; current position: Big Data Engineering at FINRA
- Catherine Foss, Ph.D. (instructor, 2007-2015; assistant professor, 2015-)
- Yimao Zhang, M.S. (research associate, 2004-2009; instructor, 2009-2010) [57] [74] [80] [125]; patents: [7]
- Sangeeta Ray Banerjee, Ph.D. (research associate, 2005-2009; instructor, 2009-2011; assistant professor, 2011-) [65] [67] [82] [88] [95] [112] [114] [119] [129] [133] [148] [149] [155] [156] [162] [169] [176] [177] [184] [185] [195] [201] [205] [213]; reviews: [28] [35]; patents: [4] [5] [8] [11] [13] [19] [20] [28] [34] [35] [36] [38]
- Sridhar Nimmagadda, Ph.D. (instructor, 2007-2009; assistant professor, 2009-2013; associate professor, 2013-)
- Ying Chen, Ph.D. (research associate, 2008-11; instructor, 2011-2015; assistant professor, 2015-)
- IL Minn, Ph.D. (research associate, 2012-2014; instructor, 2014-)
- Yuchuan Wang, Ph.D. (assistant professor, 2012-)
- Seulki Lee, Ph.D. (assistant professor, 2012-) [146] [173] [194] [206] [216]; patents: [29] [33] [39] [40]
- Ana Kiess, M.D., Ph.D. (instructor, 2013-2014; assistant professor, 2014-)

- Wojtek Lesniak, Ph.D. (research associate, 2013- , with Dr. Sridhar Nimmagadda) [166] [183] [207] [210] [214]
- Ogyi Park, Ph.D. (research associate, 2014- , with Dr. Seulki Lee) [206]
- Mary Brummet, M.S. (research associate, 2014-) [195]
- Xing Yang, Ph.D. (instructor, 2014-2015; assistant professor, 2015-)

Faculty Mentees (clinical or formal/non-clinical)

- Bruce Wasserman, M.D. (1999) [17]; current position: Professor of Radiology, Johns Hopkins University School of Medicine
- Dima Hammoud, M.D. (2005)
- Sanjay Jain, M.D. (2006) [83] [87] [121] [152] [168] [172]; reviews: [19]; patents: [15]; current position: Associate Professor of Pediatrics, Johns Hopkins University School of Medicine
- Steve Cho, M.D. (2007) [127] [150] [175] [186] [191] [198] [200] [208]; reviews: [17] [21] [22] [30] [35] [36]; book chapters: [11] [14]; conference proceedings: [4]; current position: Associate Professor of Radiology/Nuclear Medicine at University of Wisconsin
- Crystal Watkins, M.D., Ph.D. (2009)
- Jennifer Coughlin, M.D. (2010)
- Myria Petrou, M.B. Ch.B. (2009) [135] [142] [151] [164]; current position: Assistant Professor of Radiology, University of Michigan
- Dian Arifin, EngD. (2011) (formal/non-clinical)
- Anobel Tamrazi, M.D., Ph.D. (2013)

Master's Thesis Students

- Kevin Peyre, Paris-Sud XI University, for the European Master in Molecular Imaging (with Dr. Sridhar Nimmagadda) (2010)
- Kristie Stone Department of Chemistry, Homewood (2008) [94]; current position: Forensic Scientist Shift Supervisor at the Department of Forensic Sciences, Washington, DC

Ph.D. Theses Conferred

- Crystal Dusich, Department of Chemistry, Homewood (2008) [60] [70]; current position: Intellectual Property Associate at Fish & Richardson P.D., San Diego, CA
- Carrie Bhang, Department of Pharmacology and Molecular Sciences (2011)
- Mark Castaneres, Department of Pharmacology and Molecular Sciences (2012)
- Brice Wilson, Department of Pharmacology and Molecular Sciences (with Dr. William Isaacs, primary mentor) (2011) [107]; current position: IRTA Fellow, Molecular Targets Laboratory, NCI
- Bradley Foerster, M.D., Bloomberg School of Public Health (2013) [135] [142] [151] [164]; current position: Assistant Professor of Radiology, University of Michigan
- Akrita Bhatnagar, Department of Pharmacology and Molecular Sciences (2014)

Ph.D. Thesis Committees

- Yvette Tanhehco, Department of Cellular and Molecular Medicine (Dr. Richard Ambinder)
- Michael Yu, M.D., Department of Cellular and Molecular Medicine (Dr. Richard Ambinder)
- Aaron LeBeau, Department of Pharmacology and Molecular Sciences (Dr. Samuel Denmeade)
- Andrew DuFresne, Department of Pharmacology and Molecular Sciences (Dr. Richard Ambinder)
- Katie Herbst, Department of Pharmacology and Molecular Sciences (Dr. Jin Zhang)
- Yanhui Lu, Department of Pharmacology and Molecular Sciences (Dr. Robert Silicano)
- Julie Lade, Department of Pharmacology and Molecular Sciences (Dr. Namandje Bumpus)
- Lye Lin Lock, Department of Chemical and Biomolecular Engineering (Dr. Honggang Cui)
- John-Michael Williford, Department of Materials Science and Engineering (Dr. Hai-Quan Mao)
- Charlene M. Dawidczyk, Department of Materials Science and Engineering (Dr. Peter Searson)

T32 Training Grant Participation

Russell H. Morgan Department of Radiology and Radiological Science
Department of Pharmacology and Molecular Sciences
Department of Chemical and Biomolecular Engineering
Department of Environmental Health Sciences
Departments of Psychiatry and Behavioral Science and Neuroscience
Department of Biomedical Engineering

Formal Faculty Mentees, NIH K-award:

- Adam Kaplin, M.D., Ph.D. (Department of Psychiatry, 2005)
- Paul Rosenberg, M.D. (Department of Psychiatry, 2008)
- Sangeeta Ray, Ph.D. (Russell H. Morgan Department of Radiology and Radiological Science, 2010)

Mentoring Committees

Career Development and Advisory Committee (2011-)

EDITORIAL ACTIVITIES

Referee (partial listing)

Radiology, American Journal of Neuroradiology, Neuropsychopharmacology, Journal of Experimental Neuropsychopharmacology, Journal of Experimental Neurology, Journal of Nuclear Medicine, Journal of Clinical Oncology, Molecular Imaging, Proceedings of the National Academy of Sciences of the USA, Nuclear Medicine and Biology, Drug Design Reviews, Cancer Research, Science, Nature Medicine, Academic Radiology, Journal of Medicinal Chemistry, Bioconjugate Chemistry, Bioorganic and Medicinal Chemistry Letters, The Prostate

Editorial Board

- *Molecular Imaging* 2001-
- *Drug Design Reviews – Online* 2003-
- *Molecular Imaging (Editor-in-Chief)* 2007-10
- *Academic Radiology (Duputy Editor)* 2007-
- *Theranostics* 2011-
- *American Journal of Nuclear Medicine and Molecular Imaging* 2011-
- *Molecular Imaging Gateway* 2011-
- *Radiology of Infectious Diseases* 2014-
- *Nuclear Medicine and Molecular Imaging* 2015-
- *Tomography* 2015-

CLINICAL ACTIVITES

Board Certification

- Diplomat National Board of Medical Examiners 1991
- American Board of Radiology (Diagnostic) 1995
- American Board of Nuclear Medicine 1995, 2005, 2015

Current Medical Licensure

- Maryland

Clinical Service Responsibilities

- Full-time staff, Division of Neuroradiology 1995-2014
- Director, Divison of Nuclear Medicine and Molecular Imaging 2015-

ORGANIZATIONAL ACTIVITIES

Institutional and Other Administrative

- Vice President, Urbana-Champaign chapter of Physicians for Social Responsibility 1984-86
- M-3 Representative to the Educational Policy Committee (Univ. Illinois) 1985-86

-	Pharmaceutical Industry Analyst, Paisely Associates, Urbana, IL	1987-90
-	Medical student advisor	1996-98
-	Alzheimer's Association Initial Review Board of the Medical and Scientific Advisory Council	1996-98
-	Member of the Molecular Imaging Subgroup of the NCI Imaging Sciences Working Group	1998
-	AUR Program Committee	1997
-	NABTT Consortium (Adult Brain Tumor Clinical Trials)	1997-00
-	Grant Reviewer for the RSNA Research and Education Fund	1998
-	Neuroradiology Specialist to the Johns Hopkins Vasculitis Center	1999
-	Radiology Consultant, Quintiles, Intelligent Imaging, Philadelphia, PA	2000-01
-	ACRIN, Molecular Imaging Committee Chair	2001-06
-	Grant Reviewer for Johns Hopkins University Institutional Research Grants (IRG)	2001-
-	Expert Panel, Canadian Foundation for Innovation	2001-02
-	Study Section, National Institutes of Mental Health – ad hoc	2001-
-	Study Section, National Institutes of Health Diagnostic Imaging (DMG) – ad hoc	2001-
-	Reviewer for National Cancer Institute DCIDE program	2002
-	Policy Committee, Center for High Resolution Imaging of Functional Neural Circuits in Behavior and Pathology, Columbia University	2002
-	Gerson-Lehrman Group, New York, NY (consultant)	2002-10
-	Elected to the Medical School Council	2002-06
-	Expert Panel, Development of Radiology Research Infrastructure (Pasadena, CA)	2003
-	Molecular Imaging Task Force, Johns Hopkins University	2003
-	Elected to Treasurer, Society for Molecular Imaging	2004-06
-	External Advisory Board to University of Pennsylvania Brain Tumor PPG	2004
-	Scientific Advisory Board, Goldhirsh Foundation (brain tumor research)	2004-07
-	Steering Committee, Johns Hopkins Institute for Nanobiotechnology	2005-
-	Radiological Society of North America, Molecular Imaging Refresher Course (Course Originator and Organizer)	2005-06
-	Scientific Advisory Board, Goldman Foundation (pancreatic cancer research)	2005-
-	Scientific Advisory Board, NorthStar Nuclear Medicine	2005-
-	Radiological Society of North America, Molecular Imaging Committee	2005-
-	Johns Hopkins Technology Opportunities Program	2005-
-	President of the Molecular Imaging Center of Excellence (MICoE) of the Society of Nuclear Medicine	2006-08
-	Nominated for President, Society for Molecular Imaging	2006
-	General Electric Global Research, Niskayuna, NY (consultant)	2006
-	Schering-Plough Research Institute, Kenilworth, NJ (consultant)	2006
-	Advisor to the Molecular Imaging Program at Virginia Commonwealth Univ.	2006
-	Advisor to the Molecular Imaging Program at Emory Univ.	2006
-	Board of Scientific Counselors of the NIH Clinical Center	2007-12
-	Scientific Advisory Board: Molecular Insight Pharmaceuticals	2007-10
-	Board of Directors: NorthStar Nuclear Medicine	2008-
-	Scientific Advisory Board: MDS Nordion	2008-

- Scientific Advisory Board: Penn Center for Musculoskeletal Disorders 2008-
- Scientific Advisory Board: University of Virginia Cyclotron Facility 2008-
- Scientific Advisory Board: CIHR Team in Image Guidance for Prostate Cancer, London Regional Cancer Center 2008-
- Member, Clinical Molecular Imaging and Probes Study Section (NIH) 2009-13
- Reviewer, Cancer Prevention Research Institute of Texas 2009-
- Scientific Advisory Board: National Center of Image Guided Therapy 2009-
- Scientific Advisory Board: National Centre of Excellence Canada 2010-
- Internal Scientific Advisory Committee of the Johns Hopkins Alzheimer's Disease Research Center 2010-
- Scientific Advisory Board: Ontario Institute for Cancer Research Imaging Program 2011-
- Scientific Advisory Board: Molecular Imaging Research, Inc. 2011-
- Scientific Advisory Board: Psychogen, Inc. 2012-
- Center for Molecular Imaging Innovation and Translation Task Force 2013-14
- External Advisory Board Member for the Office of the Provost R. Lee Clark Fellows Award 2014
- Johns Hopkins Institute for Clinical and Translational Research Leadership Council 2014-
- Scientific Advisory Board: MI Labs 2014-
- Executive Committee, Johns Hopkins Institute for Nanobiotechnology 2014-
- Radiological Society of North America Research Development Committee 2014-17
- Awards Committee for Society of Nuclear Medicine and Molecular Imaging 2014-15
- Affiliate of the Chemical Therapeutics Program of the Sidney Kimmel Comprehensive Cancer Center 2015
- ASAP Committee of the EXCELL to INNOV (Lisboa Instituto de Medicina Molecular) 2015
- Economics of Clinical Operations Course (Johns Hopkins University School of Medicine) – participant 2015
- External Advisory Board, Sabin Family Foundation Fellows Award (MD Anderson Cancer Center) – inaugural member 2015-

Societies

Sigma Xi, Phi Lambda Upsilon, American Chemical Society, Radiological Society of North America, American Roentgen Ray Society, American Society of Neuroradiology, Eastern Neuroradiological Society, Society of Nuclear Medicine and Molecular Imaging, World Molecular Imaging Society, The Society of Radiopharmaceutical Chemistry and Biology, American Association of Cancer Research

Meeting Organizer and Program Committee

- Organizer and Co-chairman of *High Resolution Imaging in Small Animals with MR, PET and Other Modalities* (Rockville, MD 09/01)

- Session Chair/Organizing Committee Member, *Second Annual Meeting of the Society for Molecular Imaging* (San Francisco, CA 08/03)
- Session Chair, *Third Annual Meeting of the Society for Molecular Imaging* (St. Louis, MO 09/04)
- Organizer, *Conjoint SMI/RSNA/SNM Preconference Symposium on Molecular Imaging* (Kona, Hawaii, 09/06)
- Session Chair, *Fifth Annual Meeting of the Society for Molecular Imaging* (Kona, Hawaii, 09/06)
- Session Chair, *92nd Scientific Assembly and Annual Meeting* (Chicago, IL, 11/06)
- Session Chair, *54th Annual Meeting of the Society of Nuclear Medicine* (Washington, DC, 06/07)
- Session Chair, *Annual Meeting of the American Association for Cancer Research* (San Diego, CA, 04/08)
- Session Chair, *Annual Meeting of the SNM* (New Orleans, LA, 06/08)
- Session Chair, *Seventh Annual Meeting of the Society for Molecular Imaging* (Nice, France, 09/08)
- Session Chair, *Radiological Society of North America* (Chicago, IL, 12/08)
- Session Chair, *European Society of Radiology* (Vienna, Austria, 03/11)
- International Advisory Committee, *Neuroreceptor Mapping 12* (Baltimore, MD, 08/12)
- Session Chair, *Annual Meeting of the American Association for Cancer Research* (Washington, DC, 02/13)
- Organizer and Session Chair, *Annual Meeting of the World Molecular Imaging Society* (New York, NY, 09/16)
- Organizer and Session Chair, *Annual Meeting of the World Molecular Imaging Society* (Philadelphia, PA, 09/17)

RECOGNITION

Awards and Honors

- University of Illinois at Urbana-Champaign Medical Scholars Program 1982-90
- Outstanding Teaching Assistant, General Chemistry, University of Illinois at Urbana-Champaign Spring, 1983, 84, 85
Fall, 1983, 84
- Head Teaching Assistant, Chemistry 101, University of Illinois at Urbana-Champaign Fall 1983, 84
- College of Medicine, University of Illinois at Urbana-Champaign Summer Research Fellow 1983-84
- Boehringer-Ingelheim Pharmacology Essay Contest, Second Place 1985
- University of Illinois at Urbana-Champaign Graduate College Conference Travel Grant 1987
- University of Illinois (all campuses), Student Medical Research Forum Second Place 1988
- Berson-Yalow Award, Society of Nuclear Medicine (first author) 1988
- R.C. Fuson Award for Excellence in Organic Chemistry, University of Illinois at

Urbana-Champaign	1988
- Jordan F. Asketh Fellow (University of Illinois at Urbana-Champaign College of Medicine - inaugural recipient)	1988-90
- William Gatewood Fellowship (Russell H. Morgan Department of Radiology and Radiological Science)	1995
- Radiological Society of North America, Scholars Grant Award	1996-98
- NARSAD Young Investigator (Marcia Simon Investigator)	1997-99
- Radiological Society of North America Certificate of Merit	1998
- Berson-Yalow Award, Society of Nuclear Medicine (co-author)	2007
- Distinguished Service Award, Society of Nuclear Medicine	2008
- Berson-Yalow Award, Society of Nuclear Medicine (senior-author)	2010
- Frost & Sullivan Technology Innovation of the Year Award (co-recipient)	2010
- Berson-Yalow Award, Society of Nuclear Medicine (senior author)	2011
- William R. Brody Professor, Johns Hopkins University	2011-
- Distinguished Investigator of the Academy of Radiology Research	2012
- A. David Mazzone Challenge Award of the Prostate Cancer Foundation (PI, co-recipient)	2012
- Elected to the Interurban Clinical Club	2014
- Most Influential Radiology Researcher Semifinalist (AuntMinnie.com)	2014
- Johns Hopkins Radiology Resident Mentoring Award	2014-15
- Challenge Award of the Prostate Cancer Foundation (co-I, co-recipient)	2015

Invited Lectures

Extramural

- 12/16/96 - Walter Reed Army Medical Center, Residency Training Program, Bethesda MD: *Classics of CNS Differential Diagnosis*
- 01/09/97 - Astra Arcus U.S.A., Rochester NY: *Positron Emission Tomography in Drug Research: Focus on Brain Imaging*
- 05/14/98 - Guilford Pharmaceuticals, Baltimore MD: *Radiopharmaceuticals in Drug Research: Focus on Brain Imaging*
- 07/13/98 - Maryland General Hospital, Baltimore MD: *Use of Tissue Plasminogen Activator in Acute Stroke*
- 12/09/99 - Georgetown University, Drug Discovery Program, Washington DC: *Imaging Agent Development*
- 03/06/01 - Thomas Jefferson University, Radiology Grand Rounds, Philadelphia PA: *Molecular Imaging for Oncology*
- 04/23/01 - Think Tank: Translating Molecular Imaging from Research to Radiologic Practice, Lansdowne VA: *Molecular Imaging: an Overview*
- 08/04/01 - CapCURE Think Tank, Chicago IL: *Molecular Imaging for Oncology*
- 08/16/01 - Colombian Society of Neuroradiology: *Topics Related to Clinical Neuroradiology*
- 08/24/01 - Michigan State University, Molecular Imaging Workshop, East Lansing MI: *Functional Imaging of Cancer*
- 09/05/01 - American Society of Head and Neck Radiology: *Temporal Bone Disease in the*

Immunocompromised Host

- 09/12/01 - Society for Noninvasive Imaging in Drug Development: *Predicting the Success of a Radiopharmaceutical for in Vivo Imaging*
- 09/30/01 - Imaging in 2020: *Predicting the Success of a Radiopharmaceutical for in Vivo Imaging*
- 02/28/02 - Biomedical Imaging Program, National Cancer Institute: *Radiopharmaceutical Development*
- 05/07/02 - Stanford University, Department of Radiology: *Functional Imaging of Cancer*
- 05/14/02 - Delaware Valley Drug Metabolism Discussion Group: *Molecular Imaging in Drug Development*
- 05/15/02 - Columbia University Department of Radiology Grand Rounds, New York, NY: *Molecular Imaging*
- 05/18/02 - International Society for Magnetic Resonance in Medicine, Educational Program: *Basic Neurochemistry*
- 06/18/02 - Agensys, Inc, Santa Monica, CA: *Molecular Imaging in Drug Development*
- 07/10/02 - IEEE Biomedical Imaging Symposium: *Radiopharmaceutical Development*
- 08/19/02 - Memorial Sloan-Kettering Cancer Center, Division of Nuclear Medicine, New York, NY: *Functional Imaging of Cancer*
- 09/04/02 - University of Pennsylvania, Division of Neuroradiology, Philadelphia PA: *CNS Molecular Imaging*
- 03/08/03 - 10th Anniversary Symposium of National PET/Cyclotron Center, Taipei Veterans General Hospital, Taipei Taiwan: *Small Animal Imaging in Drug Development*
- 03/19/03 - New York University, Radiology Grand Rounds, Visiting Professorship, New York, NY: *Molecular Imaging*
- 04/29/03 - ASNR Research Symposium: *Preparing to write a grant*
- 08/18/03 - 2nd Annual Meeting of the Society for Molecular Imaging, plenary lecture: *Molecular Imaging in Drug Development*
- 08/23/03 - Medical Scholars Program, Annual Research Conference, University of Illinois at Urbana-Champaign, Keynote Address: *Molecular Imaging Careers in Medical Research*
- 09/03/03 - Northwestern University, Radiology Grand rounds, Chicago, IL: *Molecular Imaging*
- 10/20/03 - Memorial Sloan-Kettering Cancer Center, Radiology Grand Rounds, New York, NY: *Molecular Imaging Research at Johns Hopkins*
- 12/01/03 - RSNA Focus Session, Molecular Imaging, Potentials and Challenges for Radiology: *Translating Molecular Imaging Research to the Clinic*
- 02/02/04 - AdMeTech/CapCURE Think Tank, Molecular Imaging of Prostate Cancer : *Molecular Imaging with PET: Current and Potential Research*
- 02/04/04 - University of Maryland, Radiology Grand Rounds, Visiting Professorship, Baltimore, MD: *Molecular Imaging*
- 04/30/04 - University of Pennsylvania, Department of Radiology, Molecular Imaging Symposium, Philadelphia PA: *Molecular Imaging in Oncology*
- 05/20/04 - Department of Energy: *Applications of Small Animal Imaging*
- 06/06/04 - American Society of Neuroradiology Research Symposium: *Translating Molecular Imaging Research in the Neurosciences*
- 06/15/04 - NIAID/NIH Biodefense Clinical Research Workshop: *Radionuclear Microbial Imaging*
- 06/28/04 - Strategic Research Institute, Annual CNS Disease Congress: *Molecular Imaging in drug Development*

08/31/04 - University of Pittsburgh, Department of Radiology, Pittsburgh PA: *Molecular Imaging in Oncology*

10/08/04 - NIMH Division of Molecular Imaging, Robert Innis group: *The JHU Small Animal Imaging Resource Program: an Update*

10/09/04 - ACRIN Annual Meeting: *Molecular Imaging*

10/15/04 - NCI New Investigator Meeting: Clinical Trials: *Diagnostic vs. Therapeutic Agents*

10/20/04 - American Association of Neurological Surgeons: *Molecular Imaging of the Central Nervous System*

11/20/04 - Society of Neurooncology Meet the Experts Panel: *Molecular Imaging of the CNS: Focus on Nuclear Medicine*

12/20/04 - Schering AG, Berlin, Germany: *PSMA-based Imaging of Prostate Cancer*

01/16/05 - Gordon Research Conference on Early Cancer Detection, Santa Barbara, CA: *New Imaging Techniques for Prostate Cancer*

02/07/05 - Brown University, Visiting Professorship: *Molecular Imaging: New Techniques in Brain Tumor Imaging*

02/17/05 - AstraZeneca, Wilmington, DE: *Imaging $\alpha 7$ -nAChR*

03/08/05 - Society of Toxicology, New Orleans, LA: *Molecular Imaging in Toxicology Research*

03/17/05 - Chinese Medical Societies, Beijing, China: *Molecular Imaging and New Techniques in Brain Tumor Imaging*

04/03/05 - 10th International Congress on Schizophrenia Research, Symposium Speaker, Savannah GA: *Small Animal Imaging in CNS Research*

04/17/05 - American Association for Cancer Research, Anaheim, CA: *Translating Molecular Imaging Research to Clinical Oncology*

04/29/05 - General Electric Healthcare, Princeton, NJ: *Translational Molecular Imaging*

05/09/05 - International Society for Magnetic Resonance in Medicine, Miami, FL, Plenary Speaker: *Cancer and Immuno-deficiency imaging in a Multidisciplinary World*

05/27/05 - University of Western Ontario, 2nd Annual Oncology Research and Education Day, Keynote Speaker: *Molecular Imaging*

09/26/05 - General Electric Global Research, Niskayuna, NY: *Molecular Imaging in Oncology*

10/03/05 - International Cancer Imaging Society 5th Annual Teaching Course, Keynote Lecture, Amsterdam, Netherlands: *Basic Concepts of Molecular Imaging*

10/26/05 - MD Anderson Cancer Center, 58th Annual Symposium on Fundamentals of Cancer Research, Houston, TX: *Small Animal Imaging in Oncology: Focus on Probe Development*

10/30/05 - American Association for Cancer Research, 4th Annual AACR Annual Conference, Baltimore, MD: *Translational Molecular Imaging*

11/11/05 - University of Illinois at Chicago, Department of Pharmacology, Chicago, IL: *Molecular Imaging*

11/22/05 - Wake Forest University School of Medicine, Department of Neurosurgery, Greensboro NC: *Molecular Imaging in Oncology*

12/01/05 - Radiological Society of North America, Refresher Course, Chicago, IL: *Molecular Imaging: Introduction and Overview*

12/05/05 - Topical Symposium on Advanced Molecular Imaging Techniques in the Detection, Diagnosis, Therapy and Follow-up of Prostate Cancer, Rome, Italy: *New Developments in Molecular Imaging of Prostate Cancer*

01/21/06 - Maryland State ASTAR Judges In-State Work Shop, Johns Hopkins University, Baltimore, MD: *Clinical Applications of Magnetic Resonance Imaging of the Central Nervous System*

02/11/06 - Society of Nuclear Medicine Mid-Winter Meeting, Tempe, AZ: *Identification of Novel Targets for Molecular Imaging Probes*

04/03/06 - American Association for Cancer Research, 97th Annual Meeting, Major Symposium Speaker, Washington, DC: *Molecular Imaging in New Therapeutic Development*

04/20/06 - Molecular Insight Pharmaceuticals Quarterly Scientific Meeting, Cambridge, MA: *Molecular Imaging of Prostate Cancer: Focus on PSMA*

04/30/06 - American Society of Neuroradiology 44th Annual Meeting, Neuroradiology Education and Research Foundation Symposium, San Diego, CA: *Molecular Imaging*

05/04/06 - Case Western Reserve University, Blood Club, Cleveland, OH: *Molecular Imaging for Oncology*

07/10/06 - NIH Workshop on Imaging Science Department, Washington, DC: *Translational Molecular Imaging for Oncology*

08/30/06 - RSNA/SMI/SNM Preconference Symposium on Molecular Imaging, Kona, Hawaii: *Molecular Neuroimaging: from Conventional to Emerging Techniques*

09/11/06 - Abbott Laboratories, Abbot Park, IL: *Molecular Neuroimaging: from Conventional to Emerging Techniques*

09/12/06 - American Association for Cancer Research, Molecular Diagnostics in Cancer Therapeutic Development, Chicago, IL: *Molecular Imaging for Oncology*

09/20/06 - Society for Biomedical Sciences, 12th Annual Conference and Exhibition, Seattle, WA: *Molecular Imaging in Cancer Therapy Development*

09/21/06 - MPI Molecular Imaging Research Summit, Kalamazoo, MI: *Translational Molecular Imaging: Biology Determines Modality*

10/22/06 - Canadian Association of Radiology, Montreal, Canada: *Molecular Imaging: An Overview*

10/24/06 - 3rd International Conference on Tumor Progression and Therapeutic Resistance, Baltimore MD: *Translational Molecular Imaging for Oncology*

10/25/06 - Hilal Lecture, Columbia University, New York, NY: *Molecular Neuroimaging: From Conventional to Emerging Technologies*

10/31/06 - Taiwanese Society for Molecular Imaging, Taipei, Taiwan: *Molecular Neuroimaging: From Conventional to Emerging Technologies*

10/31/06 - Taiwanese Society for Molecular Imaging, Taipei, Taiwan: *Nanoparticle-based Molecular Imaging*

11/08/06 - Molecular Insight Pharmaceuticals, Quarterly Scientific Meeting, Cambridge, MA: *Imaging Bacterial Infection with Radiolabeled FIAU: An Update*

11/18/06 - University of Buffalo, Molecular Imaging Symposium, Buffalo, NY: *Translational Molecular Imaging for Oncology*

02/05/07 - Department of Energy, Awake Animal PI Meeting, Boston, MA: *Molecular Imaging of Awake Animals*

02/28/07 - Yale School of Medicine, Department of Radiology, New Haven, CT: *Translational Molecular Imaging for Oncology and Neuroscience*

03/25/07 - Carolina Radiological Society, Chapel Hill, NC: *Molecular Imaging: An Overview*

04/20/07 - American Society of Functional Neuroradiology, Orlando, FL: *Molecular Imaging: An Overview*

04/20/07 - American Society of Functional Neuroradiology, Orlando, FL: *Molecular Neuroimaging: from Conventional to Emerging Technologies*

06/01/07 - 54th Annual Meeting, Society of Nuclear Medicine Neuroimaging Categorical Course, Washington, DC: *Neuroimaging: From Conventional to Emerging Technologies*

06/02/07 - 54th Annual Meeting, Society of Nuclear Medicine Opening Plenary, Washington, DC: *The Molecular Imaging Center of Excellence*

06/14/07 - European Society for Molecular Imaging, Naples, Italy: *Translational Molecular Imaging for Oncology*

09/06/07 - IMPaCT, Department of Defense, Atlanta, GA: *PSMA-based PET Ligands for Prostate Cancer*

09/08/07 - Society for Molecular Imaging, Preconference Symposium, Providence, RI: *Molecular Neuroimaging: From Conventional to Emerging Techniques*

09/18/07 - Imaging of Infectious Disease, NIH Workshop, Bethesda, MD: *Imaging of Infection with Radiolabeled FIAU*

09/26/07 - Advanced Neuroimaging Techniques, Martinos Symposium, Cambridge, MA: *Translational Molecular Imaging*

09/26/07 - Advanced Neuroimaging Techniques, Martinos Symposium, Cambridge, MA: *Neuroimaging: from Conventional to Emerging Technologies*

10/08/07 - Molecular Imaging Program at Stanford, Stanford, CA: *Translational Molecular Imaging for Oncology*

10/20/07 - IMMPC-3 Conference, Medicinal Chemistry, Antalya, Turkey: *Translational Molecular Imaging for Oncology*

11/14/07 - American College of Veterinary Pathology, Savannah, GA: *Translational Molecular Imaging: Focus on Radiopharmaceuticals*

11/20/07 - University of Virginia, Focus on Imaging, Charlottesville, VA: *Translational Molecular Imaging for Oncology*

11/25/07 - Radiological Society of North America Refresher Course, Chicago, IL: *What is Molecular Imaging?*

12/13/07 - Tumor Microenvironmental Network, NCI, Bethesda, MD: *Translational Molecular Imaging for Oncology*

12/17/07 - Washington University Molecular Imaging Center, St. Louis, MO: *Translational Molecular Imaging for Oncology*

01/21/08 - International Life Sciences Institute, 2008 Annual Meeting, Rio Grande, PR: *Translational Molecular Imaging for Oncology: Focus on Radiopharmaceuticals*

02/06/08 - Emory University Visiting Professor, Atlanta, GA: *Translational Molecular Imaging for Oncology*

02/06/08 - Emory University Visiting Professor, Atlanta, GA: *Neuromolecular Imaging: From Conventional to Emerging Techniques*

02/06/08 - Emory University Visiting Professor, Atlanta, GA: *Classics of CNS Differential Diagnosis*

02/22/08 - Duke Comprehensive Cancer Center, First International Workshop on Focal Therapy and Imaging of Prostate Cancer, Durham, NC: *PSMA-based Imaging Agents for Prostate Cancer*

03/15/08 - British Nuclear Medicine Society, Nuclear Oncology, from Genotype to Phenotype to Targeted Therapy, Baltimore, MD: *New Ligands and Approaches to Radionuclide Imaging and Therapy*

03/19/08 - American Association for Cancer Research, Advances in Cancer Research, from the Laboratory to the clinic, Dead Sea, Jordan: *Translational Molecular Imaging for Oncology*

03/29/08 - University of Florida, College of Medicine Molecular Medicine, Applying Current and Emerging Technologies, Orlando, FL: *Translational Molecular Imaging for Oncology*

06/14/08 - SNM Annual Meeting, 2008 Categorical Course, New Orleans, LA: *What is Molecular Imaging?*

06/29/08 - American Society of Nuclear Cardiology Annual Meeting 2008, Annapolis, MD: *SNM Efforts in Molecular Imaging*

07/22/08 - SNM, Advocacy Task Force, Washington, DC: *Molecular Imaging 101*

08/18/08 - American Chemical Society Fall, 2008 Annual Meeting, Philadelphia, PA: *Translational Molecular Imaging for Oncology: Focus on Prostate Cancer and Lymphoma*

08/22/08 - University of Texas, Southwestern, Department of Radiology, Dallas, TX: *Translational Molecular Imaging for Oncology*

09/16/08 - National Institute of Bioimaging and National Advisory Council Meeting, Bethesda, MD: *Prostate-specific Membrane Antigen (PSMA): a Versatile Target for Molecular Imaging*

09/17/08 - Pfizer Global Research, Groton, CT: *Translational Molecular Imaging*

09/18/08 - Seventh Annual International Neuro-oncology Updates Symposium, Baltimore, MD: *Translational Molecular Imaging for Oncology*

09/26/08 - Vanderbilt University, Institute for Imaging Science Founders' Lecture, Nashville, TN: *Translational Molecular Imaging for Oncology*

10/27/08 - Ceders Sinai Medical Center, Department of Radiology, Los Angeles, CA: *Translational Molecular Imaging*

11/07/08 - Bayer Healthcare-Bayer Schering Pharma Life Sciences Workshop Series, Berlin, Germany: *Translational Molecular Imaging for Oncology*

11/12/08 - University of Michigan Medical School, Fifth Annual Biomedical Research Symposium, Image Guided Therapy, Ann Arbor, MI: *Translational Molecular Imaging for Oncology*

11/19/08 - University of Cambridge, GE Healthcare Symposium, Cambridge, England: *Translational Molecular Imaging for Oncology*

01/12/09 - AdMeTech Foundation, Consensus Conference on Prostate Imaging, Bethesda, MD: *Near-term Approaches to Molecular Imaging of Prostate Cancer*

01/21/09 - Virginia Commonwealth University, Massey Cancer Center, Richmond, VA: *Translational Molecular Imaging for Oncology*

01/26/09 - University of Pennsylvania, Department of Pharmacology, Philadelphia, PA: *Molecular Imaging: From Probe Development to Clinical Translation*

03/15/09 - Eisai Pharmaceuticals Inc, Baltimore, MD: *PSMA/GCPII Imaging*

03/16/09 - Massachusetts General Hospital, Department of Radiology, Radiology Grand Rounds, Boston, MA: *Translational Molecular Imaging: Classics in CNS Differential Diagnosis*

03/17/09 - Brigham and Women's Hospital, Department of Radiology, Radiology Grand Rounds, Boston, MA: *Translational Molecular Imaging: Classics in CNS Differential Diagnosis*

03/30/09 - PsychoGenics Inc, Tarrytown, NY: *PSMA/GCPII Imaging*

04/3/09 - University of Pittsburgh and Carnegie Mellon University, Symposium on Recent Advances in Cellular and Molecular Imaging, Pittsburgh, PA: *Molecular Imaging for Oncology*

04/13/09 - UCLA California Nanosystems Institute, Department of Molecular Pharmacology Crump Institute for Molecular Imaging, Los Angeles, CA: *Translational Molecular Imaging for Oncology*

04/17/09 - American Association for Clinical Chemistry Imaging for Oncology, 41st Annual Oak Ridge Conference Frontiers in Clinical Diagnostics, Baltimore, MD: *Translational Molecular Imaging for Oncology*

05/12/09 - Association of University Radiologists Molecular Biology for Imagers Course, Arlington, VA: *Molecular Theranostics II: A Chemist's Perspective*

05/19/09 - University of Pennsylvania, Department of Radiology, Radiology Grand Rounds, Philadelphia, PA: *Resident Cases/Preparing to Write a Grant/Translational Molecular Imaging*

05/25/09 - Instituto de Pesquisas Energeticas Nucleares, Conferencial Integrada sobre Tecnologia PET/CT, Sao Paulo, Brazil: *Five lectures related to molecular imaging preclinical and Translational*

06/30/09 - Brigham and Women's Hospital, Harvard Medical School Annual Radiology Research Retreat, CIMIT Forum, Cambridge, MA: *How to Establish a Molecular Imaging Program/Molecular Imaging of Prostate Cancer: Focus on Radiopharmaceuticals*

08/20/09 - Memorial Sloan-Kettering Cancer Center, Department of Radiology, New York, NY: *Molecular Imaging for Oncology*

10/02/09 - National Cooperative Cancer Network 2nd Annual Forum, Innovative Diagnostics And Therapeutics in Cancer Care, New York, NY: *Novel Imaging Techniques for Central Nervous System Cancers*

11/06/09 - International College for Geriatric Psychoneuropharmacology, Baltimore MD: *Molecular Neuroimaging Focus on HIV-Associated Disorders*

01/07/10 - Siemens Molecular Imaging, Knoxville, TN: *PSMA-Based Imaging of Prostate Cancer*

02/18/10 - Molecular Imaging Program, National Cancer Institute, Bethesda MD: *Translational Molecular Imaging for Oncology*

02/24/10 - Third International Symposium on Focal Therapy and Imaging of Prostate and Kidney Cancer, Duke Comprehensive Cancer Center, Washington, DC: *Low Molecular Weight Imaging Agents for Prostate Cancer: Focus on PSMA*

03/10/10 - Mallinckrodt Institute of Radiology, Washington University School of Medicine Division of Nuclear Medicine, St. Louis, MO: *Imaging Infection and Inflammation*

03/10/10 - Twenty-fourth Annual Daniel R. Biello Memorial Lecture, Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis MO: *Translational Molecular Imaging for Oncology*

03/26/10 - Collaborative Workshop on Molecular Targeting for Imaging and Intervention, Cornell University, Ithaca NY: *Translational Molecular Imaging for Oncology*

04/05/10 - NCI-PCF Metastatic Prostate Cancer Treatment Sciences Meeting, Bethesda MD: *Small Molecule PSMA Imaging Technology*

04/14/10 - Nuclear Medicine: 25 Years of Molecular Imaging, Radboud University, Nijmegen Medical Centre, Nijmegen, Netherlands: *Translational Molecular Imaging for Oncology*

04/20/10 - American Association for Cancer Research, Washington, DC: *Translational Molecular Imaging*

05/01/10 - Mechanisms and Therapeutic Targets of Inflammatory Disease of the CNS, 20th Nikolas Symposium, Athens Greece: *Molecular Imaging of Infection and Inflammation*

05/04/10 - New Roles for Old Molecules: Enzymes in Personalized Medicine, International Society for Enzymology (ISE), Chainia, Crete, Greece: *Enzymes in Molecular Imaging*

05/30/10 - 1st iDDi Workshop on Neglected and Orphan Diseases, University of Siena, Siena IT: *Translational Molecular Imaging of Infectious Diseases*

06/05/10 - SNM, 57th Annual Meeting MICoE Categorical Seminar, Salt Lake City, UT: *The Joy of Imaging with Low Molecular Weight Agents*

06/10/10 - Fox Chase Chemical Diversity Center, Doylestown, PA: *Translational Molecular Imaging*

06/20/10 - Society of Toxicologic Pathology, Chicago, IL: *Small Animal Imaging in Facilitating Translational Research*

09/16/10 - Prostate Cancer Foundation, 17th Annual Scientific Meeting, Washington, DC: *Imaging Prostate Cancer with Low Molecular Weight Agents: Focus on PSMA*

10/28/10 - Penn State Hershey, 16th Annual Cancer Institute Symposium Epigenetics and Molecular Imaging in Clinical Oncology, Hershey PA: *Translational Molecular Imaging*

12/01/10 - Radiological Society of North America, 96th Scientific Assembly and Annual Meeting, Chicago IL: *The Joy of Positron Emission Tomography*

12/09/10 - University of Arizona Workshop on Small Animal SPECT Imaging, Tuscon, AZ: *Small Animal Imaging in Oncology: Focus on Clinical Translation*

01/21/11 - SNM Mid-Winter Meeting, Multimodality Molecular Imaging of Prostate Cancer, Palm Springs, CA: *Low Molecular Weight Imaging Agents for Prostate Cancer*

03/28/11 - Unions-Bräu-Haidhausen, Einsteinstraße 42, Munich, Germany: *Discussion on Multimodal Imaging and Procedures*

04/11/11 - Association of University Radiologists 59th Annual Meeting, AUR-NIBIB Molecular Biology for Imagers Course, Boston MA: *Molecular Theranostics II: A Chemist's Perspective*

11/08/11 - 2011 IMPAACT Leadership Retreat, Washington DC: *Molecular Imaging of Inflammation: Focus on HIV*

07/11/11 - Engineering in Medicine Redesigning Cancer Imaging and Therapy, Hanover, NH: *Translational Molecular Imaging for Oncology*

08/26/11 - Integrated Diagnostics in the Era of Massive Computing, International Society for Strategic Studies in Radiology, 9th International Symposium, Dubrovnik, Croatia: *Theranostics for Radiologists and for Other Specialists*

11/27/11 - Radiological Society of North America 96th Scientific Assembly and Annual Meeting, Molecular Imaging Refresher Course, Chicago, IL: *What is Molecular Imaging?*

11/30/11 - Radiological Society of North America 96th Scientific Assembly and Annual Meeting, Introduction to Molecular Imaging: The Essentials, Chicago, IL: *Applications of Molecular Imaging: Focus on Oncology*

02/14/12 - Research Foundation for Opto-Science and Technology 14th Symposium: Peace Through Mind Brain Science Advances in Molecular Medicine and Imaging: Between Bench and Bedside, Hamamatsu City, Japan: *Molecular Medicine: Present and Future*

03/19/12 - Fifth Annual Multi-Institutional Prostate Cancer Program Retreat, Fort Lauderdale, FL: *Molecular Imaging of Prostate cancer: Focus on PSMA*

03/30/12 - Meeting of the Interurban Clinical Club, Johns Hopkins University, Baltimore, MD: *Making Molecular Imaging a Clinical Reality*

04/02/12 - American Association of Cancer Research, In Vivo Cancer Functionalizing the Cancer Genome, Johns Hopkins University, Baltimore, MD: *In Vivo Cancer Theranostics*

05/11/12 - Biomarkers in Brain Trauma, Johns Hopkins Traumatic Brain Injury National Conference, Baltimore MD: *Molecular Imaging of Neuroinflammation: A Window into Traumatic Brain Injury*

05/18/12 - American Urological Association Nanomedicine Applications in Urology Today, Atlanta, GA: *In Vivo Cancer Theranostics*

06/11/12 - Society of Nuclear Medicine 59th Annual Meeting, Miami FL: *Low Molecular Weight Imaging Agents for PSMA*

06/15/12 - Prostate Action Forum, Rotterdam Netherlands: *Molecular Imaging of Prostate cancer: Focus on PSMA*

06/28/12 - MD Anderson Cancer Center Small Animal Imaging Facility, Houston TX: *In Vivo Cancer Theranostics*

10/08/12 - Memorial Sloan-Kettering Cancer Center, Department of Radiology, New York, NY: *Low Molecular Weight Imaging Agents for PSMA*

10/09/12 - NFL Players Association, Washington, DC: *Molecular Imaging of Brain Changes from Repetitive Sports Related Trauma*

11/15/12 - NCI Alliance for Nanotechnology in Cancer Investigators' Meeting, Houston, TX: *Theranostics in Cancer: Leveraging Imaging Agents for Therapy*

11/27/12 - Radiological Society of North America, Molecular Imaging Refresher Course, Chicago, IL: *What is Molecular Imaging?*

12/06/12 - ICON Medical Imaging, Webinar: *New Tools and Targets for Molecular Imaging of Cancer*

12/17/12 - AVID Radiopharmaceuticals, Philadelphia, PA: *Low Molecular Weight Imaging Agents for PSMA: Recent Progress*

02/21/13 - Etta K. Moskowitz Lectureship, Department of Radiology, Stanford University School of Medicine, Palo Alto, CA: *Forays into Molecular Imaging and Therapy*

03/18/13 - Integrated Research Facility, NIAID, Frederick, MD: *Forays into Molecular Imaging*

04/19/13 - Oregon Health & Science University, Department of Radiology, Portland, OR: *Forays into Molecular Imaging and Therapy*

04/28/13 - American Radium Society, Scottsdale, AZ: *Translational Molecular Imaging for Oncology*

5/23/13 - Forum of Quality Control in Nuclear Medicine, Huashan Hospital, Shanghai, China: *Translational Molecular Imaging for Oncology with Quality Control*

5/23/13 - Forum of Quality Control in Nuclear Medicine, Huashan Hospital, Shanghai, China: *Translational Molecular Imaging for Oncology*

09/18/13 - 6th Annual Meeting of the World Molecular Imaging Congress Educational Session, Savannah, GA: *Clinical Translation in Academics: Examples from Imaging Research*

09/18/13 - 6th Annual Meeting of the World Molecular Imaging Congress Educational Session, Savannah, GA: *Delivering a Reasonably Interesting Talk*

10/30/13 - Sugkyunkwan University, Seoul, South Korea: *Forays into Molecular Imaging*

10/30/13 - IEEE Medical Imaging Conference, Seoul, South Korea: *Forays into Molecular Imaging*

10/30/13 - Seoul National University Hospital, Seoul, South Korea: *Forays into Molecular Imaging*

11/07/13 - MedImmune, Gaithersberg, MD: *Forays into Molecular Imaging*

12/06/13 - Radiological Society of North America Essentials of Molecular Imaging, Chicago, IL: *New Tools and Targets for Molecular Imaging of Cancer*

02/13/14 - Yale School of Medicine, New Haven, CT: *Innovation in Radiology through Molecular Imaging*

03/03/14 - Pittcon Conference & Expo, Cancer Nanotechnology Section, Chicago, IL: *Translational Nanotechnology for Oncology*

03/04/14 - University of Chicago, Department of Radiology, Chicago, IL: *Forays into Molecular Imaging and Therapy*

03/28/14 - Department of Chemistry and Biochemistry, Baylor University, Waco, TX: *Forays into Molecular Imaging*

04/04/14 - Association of University Radiologists, Baltimore, MD: *Molecular Imaging Now and in the Future*

04/24/14 - Department of Radiology, University of Wisconsin, Madison, WI: *Molecular Neuroimaging: Focus on Clinical Translation*

04/24/14 - Department of Radiology, University of Wisconsin, Madison, WI: *Translational Molecular Imaging for Oncology*

05/06/14 - A. David Mazzone Awards Program Retreat, Dana-Farber Cancer Institute: *Promoter-driven molecular radiotherapy for prostate cancer*

05/13/14 - Nuclear Medicine Grand Rounds, University of British Columbia, Vancouver, BC, Canada: *Translational Molecular Imaging for Oncology*

06/10/14 - Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO: *New Imaging Agents for Prostate Cancer*

06/10/14 - Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO: *Radiopharmaceuticals in Oncology: Promise and Practice*

09/04/14 - Elekta Medical Affairs Summit, New York, NY: *Radiopharmaceuticals and Theranostics for Prostate Cancer*

12/01/14 - RSNA Special Interest Session SPS121C Radiology and Pathology Diagnostics: Is it time to Intergrate? Chicago, IL: *Integrating Molecular Diagnostics and Molecular Imaging*

02/06/15 - Case Comprehensive Cancer Center, Case Western Reserve University, Cleveland, OH: *Forays into Molecular Imaging*

02/12/15 - AACR/SNMMI Joint Conference, State-of-the-art Molecular Imaging in Cancer Biology and Therapy: San Diego, CA: *Imaging and Theranostics in Prostate Cancer*

02/15/15 - A New Pathway for Validation and Dissemination of Radiopharmaceuticals (NAKFI) Mini-symposium, Washington, DC: *¹⁸F-Labeled Imaging Agents Targeting PSMA*

03/06/15 - RSNA Workshop, Writing a Competitive Grant Proposal, Oak Brook, IL: *Writing the Approach Section Basic Sciences*

03/13/15 - 3rd Theranostics World Congress on Ga-68 and Radiopeptide Therapy, Baltimore, MD: *Targets for Imaging Prostate Cancer: Focus on PSMA*

04/28/15 - America Society of Neuroradiology Young Professionals Research Seminar, Chicago, IL: *Advanced Imaging Methodes to Study Cancer and Neurological Diseases*

05/06/15 - Cedars Sinai Medical Center, Los Angeles, CA: *New Imaging Agents for Prostate Cancer*

05/07/15 - UCLA SPORE in Prostate Cancer, University of California, Los Angeles, CA: *New Imaging Agents for Prostate Cancer*

05/15/15 - American Urological Association, Urologic Oncology Research Symposium: *PSMA-Targeted Imaging of Prostate Cancer*

06/06/15 - SNMMI Categorical Seminar: Advances in Prostate Cancer, Baltimore, MD: *PSMA Imaging Agents*

07/29/15 - Duke-NUS Graduate Medical School, Singapore: *Forays into Molecular Imaging: From Chemistry to Clinic*

07/30/15 - Molecular Imaging in Biomedical research, Biopolis, Singapore: *Forays into Molecular Imaging: from Chemistry to Clinic*

09/25/15 - California State University, Channel Islands, Camarillo, CA: *Molecular Imaging from Chemistry to Clinic*

10/10/15 - 22nd Annual Prostate Cancer Foundation Scientific Retreat, Washington, DC: *Detecting Prostate Cancer with DCFPyL*

11/29/15 - 101st Scientific Assembly and Annual Meeting of the RSNA, Chicago, IL: *Targeting PSMA for Imaging Cancer*

11/30/15 - MRI Working Group, AdMeTech Foundation, Chicago, IL: *PSMA-Targeted Molecular Imaging of Prostate Cancer*

01/14/16 - ES Garnett Lecturer at McMaster University Medical Centre, Toronto, ON: *Molecular Imaging: From Chemistry to Clinic*

01/14/16 - Oncology Grand Rounds, McMaster University Medical Centre, Toronto, ON: *Translational Molecular Imaging for Oncology*

02/07/16 - RSNA Workshop, Writing a Competitive Grant Proposal, Oak Brook, IL: *Writing the Approach Section Basic Sciences*

02/26/16 – National Cancer Institute, Center for Cancer Research, Grand Rounds, Bethesda, MD: *Molecular Imaging: from Chemistry to Clinic*

03/07/16 – MD Anderson Cancer Center, Division of Diagnostic Imaging Research, Houston, TX: *Molecular Imaging: from Chemistry to Clinic*

03/15/16 – University of Pennsylvania, Department of Radiology, Grand Rounds, Philadelphia, PA: *Molecular Imaging: from Chemistry to Clinic*

04/15/16 – Mid-East Chapter of the Society of Nuclear Medicine and Molecular Imaging, Annual Spring Meeting, Linthicum Heights, MD: *Targeted Molecular Imaging of Prostate Cancer: Focus on PSMA*

04/19/16 – Karmanos Cancer Institute, Detroit, MI: *Molecular Imaging for Oncology: from Chemistry to Clinic*

Intramural (Johns Hopkins University)

12/09/96 - Stanley Neurovirology Laboratory: *Psychiatric Imaging: Focus on Schizophrenia*

04/24/97 - Grand Rounds, Russell H. Morgan Department of Radiology and Radiological Science: *Imaging Nitregic Transmission*

08/13/98 - Russell H. Morgan Department of Radiology and Radiological Science: *Commencement address to the graduating nuclear medicine and ultrasound technologists*

03/01/99 - Department of Neurology: *HIV Metabolic Neuroimaging*

07/20/00 - Sidney Kimmel Comprehensive Cancer Center (Vogelstein group): *Molecular Imaging for Oncology*

09/29/00 - Division of Endocrinology: *Sellar Imaging*

05/09/01 - *In Vivo Cellular and Molecular Imaging Center (ICMIC): PET for Small Animals*

06/22/01 - Department of Neurosurgery: *New Techniques in MR Imaging of Brain Tumors*

10/19/01 - Comprehensive Transplant Center: *Molecular Imaging*

02/09/02 - Institute of Genetic Medicine: *Small Animal PET*

04/25/02 - Division of MR Research: *Nuclear Imaging in Drug Development*

04/02/03 - Department of Pharmacology and Molecular Sciences: *Molecular Imaging*

10/07/03 - Department of Comparative Medicine, Enhancing Humane Science, Baltimore MD: *Small Animal Imaging*

11/14/03 - Bloomberg School of Public Health, Baltimore MD: *Small Animal Imaging*

01/15/04 - Brady Urological Institute: *Imaging PSMA: An Update*

03/08/04 - Anticancer Drug Development Group, Department of Pharmacology and Molecular Sciences: *Molecular Imaging in Drug Development*

03/20/04 - Sidney Kimmel Comprehensive Cancer Center, The Role of PET/CT and SPECT/CT Imaging In Medical, Radiation, Surgical and Nuclear Oncology: *New Radiolabeled Chemotherapeutic Agents*

03/10/05 - Department of Pharmacology and Molecular Sciences: *Research Update*

03/15/05 - Neuroimmunology Group: *In Vivo Imaging of Inflammation*

03/17/05 - Neurosurgery Grand Rounds: *Molecular Imaging of the CNS*

11/12/05 - Brady Urological Institute, CME Course: *Molecular Imaging of Prostate Cancer*

02/10/06 - Johns Hopkins Dementia Retreat, Division of Cognitive Neuroscience: *Molecular Imaging in Neurodegenerative Disease*

03/22/06 - Phenotyping Symposium, Mice and Beyond, Department of Comparative Medicine: *Small Animal Imaging*

09/18/06 - Department of Radiation Oncology: *Molecular Imaging for Oncology*

12/14/06 - Russell H. Morgan Department of Radiology and Radiological Science, Grand Rounds: *Translational Molecular Imaging for Oncology*

03/20/07 - Johns Hopkins Phenotyping Symposium, Department of Molecular and Comparative Pathobiology: *Small Animal Imaging*

06/25/07 - Goldman Foundation, Johns Hopkins University, Department of Pathology, Baltimore MD: *Translational Molecular Imaging for Oncology*

09/19/07 - Bioinvestor Conference: *Molecular Imaging in Drug Development*

12/05/07 - Neurosurgery Grand Rounds: *Translational Molecular Imaging for Oncology*

02/04/08 - Hematology Grand rounds: *Translational Molecular Imaging for Oncology*

02/19/08 - Phenotyping Symposium, Department of Molecular and Comparative Pathobiology: *Small Animal Imaging Focus on Translation*

03/05/08 - Sidney Kimmel Comprehensive Cancer Center, Translational Research Conference: *Translational Molecular Imaging for Oncology*

10/07/08 - Breast Cancer Program Lecture Series, Baltimore, MD: *Translational Molecular Imaging for Oncology*

11/13/08 - Johns Hopkins Alliance for Science and Technology Development Program, Baltimore, MD: *ABCG2 Probe Discovery via Bioluminescence*

11/17/08 - Department of Pathology Grand Rounds: *Translational Molecular Imaging for Oncology*

03/03/09 - Phenotyping Symposium, Department of Molecular and Comparative Pathobiology: *Small Animal Imaging*

03/06/09 - Department of Rheumatology Grand Rounds: *Translational Molecular Imaging*
03/14/09 - Advances in Whole Body Fusion Imaging: PET/CT and SPECT/CT, Johns Hopkins University, Baltimore, MD: *New Radiopharmaceuticals for Infection and Cancer*
04/20/09 - Department of Radiation Oncology and Molecular Radiation Sciences, Grand Rounds: *Translational Molecular Imaging for Oncology*
05/11/10 - High Resolution Functional Brain Imaging in Celebration of the 1000th HRRT PET Scan Symposium, Russell H. Morgan Department of Radiology and Radiological Science and the Brain Science Institute: *Imaging of Neuroinflammation*
01/10/11 - Division of Medical Imaging Physics: *Translational Molecular Imaging for Oncology*
05/07/11 - Baltimore Life Scientists Association, Baltimore/Washington Metropolitan Area Korean Life Scientists Poster Symposium: *Translational Molecular Imaging for Oncology*
05/13/11 - Institute for Nanobiotechnology Fifth Annual Nano-Bio Symposium: *A Translational Nanoparticle-Based Imaging Method for Cancer*
09/13/11 - Center for Infection and Inflammation Imaging, The Nuts and Bolts of Imaging Infection & Inflammation: *Overview of Molecular Imaging*
11/15/11 - Longrifles, Brady Urological Institute: *Molecular Imaging in Oncology: What is it Good For*
12/02/11 - Bayview Research Symposium on The Future of Imaging: *Making Molecular Imaging a Clinical Reality*
01/18/12 - Eighteenth Annual Dean's Symposium, Palm Beach FL: *Making Molecular Imaging a Clinical Reality*
03/20/12 - *In Vivo* Preclinical Imaging: An Introductory Workshop: *PET Biological Applications*
09/22/12 - Department of Radiation Oncology and Molecular Radiation Sciences, Scientific Retreat: *Translational Molecular Imaging for Oncology*
09/28/12 - The 3rd Annual Prostate Cancer Awareness Fundraising dinner, Brady Urological Institute: *Imaging Prostate Cancer: Present and Future*
10/25/12 - 15th Annual MR Research Division Retreat: *Could Hyperpolarized MRI Do Clinical PET*
12/14/12 - Hopkins Symposium on Molecular Imaging-Guided Interventions: *Brain and Prostate Targeted Probes*
09/27/13 - Sidney Kimmel Comprehensive Cancer Center, Grand Rounds: *Forays into Molecular Imaging and Therapy*
12/12/13 - Department of Neurosurgery, Grand Rounds: *Forays into Molecular Imaging and Therapy*
03/11/14 - Pre-clinical Imaging Workshop: *Biological Applications of Molecular Imaging with Radiotracers*
08/20/14 - Brady Urological Institute, Johns Hopkins University: *New Imaging Agents for Prostate Cancer*
09/24/14 - Department of Radiation Oncology and Molecular Radiation Sciences: *New Imaging Agents for Prostate Cancer*
05/01/15 - Institute for Nanobiotechnology, NEURO X Symposium: *Molecular Neuroimaging: Focus on Translation*
09/30/15 - Johns Hopkins Technology Ventures Retreat: *Faculty Processes and Needs*