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Current Position: Deputy Director, RAD&IS, CC, NIH
Senior Investigator, RAD&IS, CC, NIH
Chief, Nuclear Medicine Division, RAD&IS, CC, NIH

Education and Professional Training

1966-1970	Carroll College, Waukesha, WI; B.S. (Summa Cum Laude)
1970-1974	Yale University School of Medicine, New Haven, CT; M.D. (Highest Honors)
1974-1977	Assistant Resident I, II, III (Pathology), Yale New Haven Hospital
1977-1979	Resident (Nuclear Medicine), Yale New Haven Hospital
1978-1979	Chief Resident (Nuclear Medicine), Yale New Haven Hospital
1991-1992	Sabbatical leave (6 months) Laboratory of Pathology, DCBD, NCI, NIH
2000	Sabbatical leave (6 months) NHLBI, NIH
2007	Sabbatical leave (6 months) St. Johns College, Annapolis Maryland, and Clinical Bioethics Dept., CC, NIH

Hospital, University, and Federal Government Appointments

1979-1983	Assistant Professor of Diagnostic Radiology, Yale University School of Medicine
1979-1985	Acting Chief, Nuclear Medicine Service, Veterans Administration Medical Center, West Haven, CT
1979-1985	Attending Physician, Yale New Haven Hospital, New Haven, CT
1983-1986	Associate Professor of Diagnostic Radiology and Pathology, Yale University School of Medicine
1985-1988	Deputy Chief, Department of Nuclear Medicine, National Institutes of Health
1986-1992	Program Director, Nuclear Medicine Residency Training Program Clinical Center, National Institutes of Health
1994-1995	Senior Policy Analyst, White House Advisory Committee on Human Radiation Experiments
1986-1999	Clinical Professor of Diagnostic Radiology (Nuclear Medicine), The George Washington University School of Medicine, Washington, D.C.
1988-1998	Chief, Department of Nuclear Medicine, National Institutes of Health
1998-Present	Deputy Associate Director for Radiology & Imaging Sciences, Clinical Center, NIH Chief, Nuclear Medicine Division, RAD&IS, CC, NIH
2016-2017	Acting Chief, Radiology and Imaging Sciences, CC, NIH

Current Medical Licensure

State of Maryland D32096

Awards and Honors

National Merit Scholar
Fellowship, National Aeronautics and Space Administration Space Biology Institute
Delta Sigma Nu (Academic Honor Society), Carroll College
Sigma Xi, Yale University Chapter
Fellow, American College of Chest Physicians
Distinguished Alumnus Award for Professional Achievement, Carroll College
Fellow, The Royal Society of Medicine, G.B.
N.I.H. Clinical Center Directors' Award

Patents, etc.

Antigen-specific composition and in vivo methods for detecting and localizing an antigenic site and for radiotherapy. U.S. No. 5,185,142.

Panyutin IG, Neumann RD: Sequence-specific double stranded breakage of DNA by triplex directed Auger emitters. PHS Employee Invention Report (1994)

Panyutin IG, Karamychev VN, Kim MK, Reed MW, Le N, Paik CH, Carrasquillo JA, Neumann RD: Sequence-specific DNA strand breaks in a complementary oligonucleotide produced by decay of Indium-111. PHS Employee Invention Report (1998)

Panyutin IG, Neumann RD, Luu AN, Sedelnikova OA: Labeling DNA plasmids with triplex-forming oligonucleotides, and methods for assaying distribution of DNA plasmids in vivo. PHS Employee Invention Report (1999).

Winters TA, Mezhevaya K, Panyutin IG, Neumann RD: Site specific DNA mutagenesis mediated by 125-I labeled triplex forming oligonucleotides. PHS Employee Invention Report (1998).

Winters TA, Pastwa E, Neumann RD: A Plasmid based assay for the in vitro repair of oxidatively induced DNA double-stranded breaks. (patent pending 2001). DHHS No.: E-319-00/0. U.S. Provisional patent no. 60/238,757. Accepted.

Professional Affiliations

Society of Nuclear Medicine
- Assoc. Program Chair, Continuing Education 1995
- Greater New York Chapter 1979-1985
- Mid-Atlantic Chapter 1985-present; Vice-President 1995; President-Elect 1996; President 1998

American Association for the Advancement of Science
European Association of Nuclear Medicine
Radiation Research Society

Committee Responsibilities

Member, Medical Isotopes Safety Committee, Yale New Haven Hospital, 1978-1979
Co-Chairman, Scientific Program Committee, Greater New York Chapter, Society of Nuclear Medicine, 1979
Chairman, Medical Isotopes and Radiation Safety Committee, West Haven Veterans Administration Medical Center, 1979-1985
Chairman, Radioactive Drug Research Committee, West Haven Veterans Administration Medical Center, 1981-1985
Member, Yale University School of Medicine Admissions Committee, 1982-1985
Alternate Member, Radiation Safety Committee, National Institutes of Health, 1985-1988
Member, Clinical Research Panel, National Institute of Diabetes and Digestive and Kidney Diseases, 1987-1988

Member, Academic Council, Society of Nuclear Medicine, 1987 - present
Member, Radiation Safety Committee, National Center for Health Statistics, 1987-1989.
Co-Chairman, Radiation Safety Committee, National Institutes of Health, 1988-1991.
Member, NIH Extramural Program Diagnostic Imaging Research Coordinating Committee, 1988-1992.
Member, NIH Procurement Advisory Committee, 1989-1991.
Member, User Committee for Clinical Center Infrastructure Modernization and Improvement Program, 1990-1991.
Member, NIH Workgroup for Alternative Personnel Systems, 1989-1991.
Chairman, Faculty Tenure Promotion Panel, Clinical Center, 1989-1995.
Member, Society for Chairmen of Academic Nuclear Medicine Departments, 1990-present.
Member, NIH Intramural Diagnostic Radiology Research Program Planning Committee, 1990-1995.
Clinical Center Representative, Medical Board, NIH, 1993-1995.
Member, Oversight Committee for NIH Day Care Facilities, 1993-1996.
Co-Chairman, SNM Continuing Education Program, 1995.
Program Chairman, Mid-Eastern Chapter, Society of Nuclear Medicine, 1996, 1997
Performance Management Steering Committee, Clinical Center, NIH. 1998-2000
Member, International Commission on Radiation Units and Measurements, Inc., Committee on Assessment of Image Quality in Nuclear Medicine – 2000-2005
NIH Radiation Safety Committee – 2003-2005
Etc.

Special Management Training Courses

Program for Chiefs, of Clinical Services, Harvard School of Public Health, January 17-29, 1988.

Program for Advanced Training in Biomedical Research Management, Harvard School of Public Health, May 14-26, 1989.

Advanced Program for Chiefs of Clinical Services, Harvard school of Public Health, November 4-9, 1990.

Current Bibliography

235 publications

Publications

M.D. Thesis: The role of adenylcyclase in cholerheic enteropathy: Studies of adenyl cyclase in the rat colon. Yale University, School of Medicine, 1974.

Publications - Journal Articles (Peer-Reviewed)

1. Neumann RD, LiVolsi VA, Rosenthal NS, Burrell MI and Ball TJ: Adenocarcinoma in biliary papillomatosis. Gastroenterology 70(5 Pt. 1): 779-782, (1976).

2. Saruk M, Stern H, Tronic BS, Neumann RD and LiVolsi VA: Intrapulmonary benign cystic teratoma. Conn Med 44(11): 687-689, (1980).

3. Neumann RD, Sostman HD, Gottschalk A. Current status of ventilation-perfusion imaging. Semin Nucl Med. 10(3): 198-217, (1980).

4. Simon TR, Neumann RD, Gorlick F, Gottschalk A, Hoffer PB and Riely CR: Scin-

tigraphic diagnosis of cirrhosis: A ROC analysis of the common interpretive criteria. Radiology 138(3): 723-726, (1981).

5. Neumann RD, Hoffer PB, Merino MJ, Kirkwood JM and Gottschalk A: Clinical value of galium-67 in imaging patients with lung carcinoma and melanoma: Some surprising results from two prospective protocols. In Medical Radio-nuclide Imaging 1980 Vol. II, International Atomic Energy Agency, Vienna, (1981).

6. Sostman HD, Neumann RD, Zoghbi SS, Lord PF, Thakur ML, Carbo P, Greenspan RH and Gottschalk A: Experimental studies with 111-Indium-labeled platelets in pulmonary embolism. Invest Radiol 17(4): 367-374, (1982).

7. Sostman HD, Neumann RD, Loke JO, Zoghbi SS, Gottschalk A and Greenspan RH: Detection of pulmonary emboli in man with 111-In-labeled platelets. Am J Roentgenol 138(5): 145-147, (1982).

8. Zeman RK, Lee CH, Stahl RS, Cahow CE, Viscomi GN, Neumann RD, Gold JA and Burrell MI: Ultrasonography and hepatobiliary scintigraphy in the assessment of biliary-enteric anastomoses. Radiology 145(1): 109-115, (1982).

9. Kirkwood JM, Myers JE, Vlock DR, Neumann RD, Ariyan S, Gottschalk A and Hoffer PB: Tomographic gallium-67 citrate scanning: useful new surveillance for metastatic melanoma. Ann Int Med 97: 694-699, (1982).

10. Armas R, Neumann RD and Goldsmith SJ: Differential skeletal uptake of Tc-99m-tagged pyrophosphate and methylene diphosphonate in leukemia. J Nucl Med 24: 799-802, (1983).

11. Sostman HD, Neumann RD, Gottschalk A and Greenspan RH: Perfusion of non-ventilated lung on ventilation-perfusion scintigraphy. Am J Roentgenol 141(1): 151-156, (1983).

12. Sostman HD, Zoghbi SS, Smith GJW, Carbo P, Neumann RD, Gottschalk A and Greenspan RH: Platelet kinetics and biodistribution in canine endotoxemia, Invest Radiol 18(5): 425-435, (1983).

13. Hoffer PB, Neumann RD, Quartararo L and Hernandez T: Improved intrinsic resolution: Does it make a difference? J Nucl Med 25: 230-236, (1984).

14. Neumann RD and Sostman HD: Gallium-67 scintigraphy of the thorax. Chest 86(2): 253-256, (1984).

15. Zeman RK, Lee C, Stahl R, Viscomi GN, Baker C, Cahow CE, Dobbins J, Neumann RD and Burrell MI: Strategy for the use of biliary scintigraphy in non-iatrogenic biliary trauma. Radiology 151: 771-777, (1984).

16. Briesblatt WM, Berger RB, Cabin HS, Cleman MW, Cerqueria MD, Neumann RD, Ezekowitz MD, Hashim SW and Berger HJ: Unsuspected left ventricular pseudo-aneurysm in a patient with coronary artery disease. Am J Cardiology 142(2): 680-682, (1984).

17. Zoghbi SS, Thakur ML, Sostman HD, Neumann RD, Carbo P, Lord P, Greenspan RH and Gottschalk A: The influence of heparin on the in vivo distribution of 111-In-labeled platelets. Invest Radiol 20(2): 198-202, (1985).

18. Zoghbi SS, Neumann RD and Gottschalk A: A modified procedure for rapid labeling

of low concentrations of bioactive proteins with Indium-111. Int J Nucl Med Biol 12(3): 159-166, (1985).

19. Zoghbi SS, Neumann RD and Gottschalk A: The ultrapurification of Indium-111 for radiotracer studies. Invest Radiol 21(9): 710-713, (1986).

20. Zoghbi SS, Neumann RD and Gottschalk A: Preparation and immunoreactivity of high specific activity Indium-111-DTPA labeled monoclonal antibody using ultrapure Indium-111. Invest Radiol 21(10): 788-792, (1986).

21. Munz DL, Carrasquillo JA, Neumann RD, Reynolds JC, Horowitz M, Morgan AC, Schlom J. Larson SM: Dose-dependent differences in biodistribution of In-111-labeled monoclonal antibodies in tumor patients. Nuklear Medizin 23: 431-434, (1986).

22. Zoghbi SS, El Rassi Z, Neumann RD and Gottschalk A: Quality control and the preparative purification of low antibody concentrations for radiolabeling using bifunctional chelates. Int J Nucl Med Biol 14(5): 529-532, (1987).

23. Kirkwood JM, Neumann RD, Zoghbi SS, Ernstoff MS, Cornelius EA, Unger MW, Shaw C, Ziyadeh T, Fine JA, and Unger MW: Scintigraphic detection of metastatic melanoma using Indium-111-DTPA conjugated anti-p240 antibody (ZME-018). J Clin Oncol 5(8): 1247-1255, (1987).

24. Sugarbaker PH, Gianola FJ, Dwyer A, Neumann RD: A simplified plan for followup of patients with colon and rectal cancer supported by prospective studies of laboratory and radiologic test results. Surgery 102: 79-87, (1987).

25. Del Vecchio S, Reynolds JC, Blasberg RG, Neumann RD, Carrasquillo JA, Hellstrom I, Larson SM: Measurement of local Mr 97,000 and 250,000 protein antigen concentration in sections of human melanoma tumor using in vitro quantitative autoradiography. Cancer Research 48(19): 5475-5481, 1988.

26. Hughes KS, Miller Dl, Neumann RD, and Sugarbaker PH: Extrahepatic tumor deposits misdiagnosed as intrahepatic metastases. Arch Surgery 123: 1013-1015, (1988).

27. Cornelius EA, Neumann RD, Zoghbi SS, Kirkwood JM, Ernstoff MS, and Unger MW: Intrapatient and interpatient comparison of tumor size and monoclonal antibody uptake in melanoma. Clin Nucl Med 13(4): 243-249, (1988).

28. Del Vecchio S, Reynolds JC, Blasberg RG, Neumann RD, Carrasquillo JA, Larson SM: A method for determination of antigen concentration in human melanoma by quantitative autoradiography. Nuklearmedizin 24 (Suppl) 566-568, (1988).

29. Larson SM, Raubitschek A, Reynolds JC, Neumann RD, Hellstrom KE, Hellstrom I, Colcher D, Schlom J, Glatstein E, Carrasquillo JA: Comparison of bone marrow dosimetry and toxic effect of high dose I-131 labeled monoclonal antibodies administered to man. Nucl Med Biol 16(2): 153-158, (1989).

30. Del Vecchio S, Reynolds JC, Carrasquillo JA, Blasberg RG, Neumann RD, Lotze MT, Bryant GJ, Farkas RJ, Larson SM: Local distribution and concentration of intravenously injected 131-I-9.2.27 monoclonal antibody in malignant melanoma, Cancer Research 49(10): 2783-2799, (1989).

31. Reynolds JC, Del Vecchio S, Sakahara H. Lora ME, Carrasquillo JA, Neumann RD, Larson SM: Anti-murine antibody response to mouse monoclonal antibodies: clinical findings and implications. Nucl Med Biol 16(2): 121-125, (1989).

32. Cuocolo A, McCarthy KE, Sandrock D, Miller DL, Neumann RD: Radionuclide renography predicts functional changes in patients with renal artery involvement by Takayasu's arteritis. Urologic Radiology 11(2): 69-76, (1989).

33. Larson SM, Carrasquillo JA, Colcher DC, Yokoyama Y, Reynolds JC, Bacharach SA, Pace L, Rotman M, Stabin M, Neumann RD, Sugarbaker P, Schlom J: Radiation dosimetry of intraperitoneally administered I-131 radiolabeled B72.3 monoclonal antibody in patients with peritoneal carcinomatosis. Nucl Med Biol 16: part II, (1989).

34. Sakahara H. Reynolds JC, Carrasquillo JA, Lora ME, Maloney PJ, Lotze MT, Larson SM, Neumann RD: In vitro complex formation and biodistribution of mouse monoclonal antibody in patients. J Nucl Med 30(8): 1311-1317, (1989).

35. Heinle A, Carrasquillo JA, Neumann RD: Two unusual cases of metastatic osteosarcoma detected by Tc-99m MDP bone scintigraphy. Clin Nucl Med 14(12): 889-893, (1989).

36. Kennedy SM, Merino MJ, Roberts JR, Linehan WM, Robertson CN, Neumann RD: Collecting duct carcinoma: A clinicopathologic, immunopathologic and ultra-structural study of 6 cases. Human Pathology 21(4): 449-456, (1990).

37. Sandrock D, Merino MJ, Scheffknecht BH, Neumann RD: Scintigraphic findings and follow-up in Erdheim-Chester disease. Eur J Nucl Med 16(1): 55-60, (1990).

38. Naruki Y, Carrasquillo JA, Reynolds JC, Maloney PJ, Frincke JM, Neumann RD, Larson SM: Differential cellular metabolism of In-111, Y-90, and I-125 radio-labeled T101 Anti-cD5 monoclonal antibody. Nucl Med. Biol 17(2): 201-207, (1990).

39. Sandrock D, Duham RG, Neumann RD: Simultaneous dual energy acquisition for Tl-201/Tc-99m parathyroid subtraction scintigraphy, physical and physiological considerations: Nuclear Medicine Comm 11: pp 503-510, (1990).

40. Cuocolo A, Volpe M, Mele AF, Celentano L, Neumann RD, Salvatore M: Effects of atrial natriuretic peptide on glomerular filtration rate in essential hypertension: a radio-nuclide study. Eur J Nucl Med 18(1): 32-37, (1990).

41. Sandrock D, Merino MJ, Norton JA, Neumann RD: Parathyroid imaging by Tc-Tl scintigraphy. Eur J Nucl Med 16(8-10): 607-613, (1990).

42. Axiotis CA, Monteagudo C, Merino MJ, LaPorte N, Neumann RD: Immunohistochemical detection of P-glycoprotein in endometrial carcinoma. Am J Pathology 138(4): 799-806, (1991).

43. Merino MJ, Monteagudo C, Neumann RD: Monoclonal antibodies for radioimmunoscintigraphy of breast cancer. Nuc Med Biol 18: 437-443, (1991).

44. Monteagudo C, Merino MJ, LaPorte N, Neumann RD: Value of GCDFP-15 in distinguishing breast metastases among primary and metastatic neoplasms involving the ovary. Human Pathology 22: 368-372, (1991).

45. Larson SM, Carrasquillo JA, Colcher DC, Yokoyama K, Reynolds JC, Bacharach SA, Raubitschek A, Pace L, Finn RD, Rotman M, Stabin M, Neumann RD, Sugarbaker P, Schlom J: Estimates of radiation absorbed dose for intraperitoneally administered I-131 radiolabeled B72.3 monoclonal antibody in patients with peritoneal carcinomatosis. JNM 32: 1661-1667, (1991).

46. Axiotis CA, Guarch R, Merino MJ, LaPorte N, Neumann RD: P-glycoprotein expression is increased in human secretory and gestational endometrium. Lab Invest 65(5): 577-581,

(1991).

47. Sandrock D, Lastoria S, Merino MJ, Neumann RD: Positive gallium-67 citrate scintigraphy in Wiskott-Aldrich syndrome with malignant lymphoma. Eur J Nucl Med 18(11): 928-930, (1991).

48. Cuocolo A, Celentano l, Nappi A, Neumann RD, Salvatore M: Morpho-functional evaluation of hypertensive patients with renal artery stenosis. Correlations between angiography and dynamic scintigraphy. Radiologia Medica 81(4): 542-549, (1991).

49. Axiotis CA, Merino MJ, Campo E, LaPorte N, Neumann RD. Correspondence Re: Timothy S. Loy, Paul L. Gelven, Dawn Mullins, and Alberto A. Diaz-Arias. Immunostaining for P-glycoprotein in the diagnosis of thyroid carcinomas. Mod Pathol 5(5):590-591, (1992)

50. Hobbs S, Neumann RD, Merino MJ, Carrasquillo JA: Localization of Tc-99m-MDP in cystosarcoma phyllodes. Clin Nucl Med 17(1): 58-60, (1992).

51. Suffredini AF, Shelhamer JH, Neumann RD, Brenner M, BAltaro RJ, Parrillo JE: Pulmonary and oxygen transport effects of intravenous endotoxin administration to normal humans. AM Rev Respir Dis 145(6): 1398-1403, (1992).

52. Green MV, Andrich MP, Doudet D, Markowitz A, Tedder TE, Owens ES, Chaparro MI, Neumann RD: Evaluation of cardiovascular function in small animals using a microcomputer-based scintigraphy imaging system. IEEE Procedings. 20: 233, (1992).

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54. Juweid M, Neumann R, Paik C, Perez-Bacete MJ, Sato J. van Osdol W. Weinstein J: Micropharmacology of monoclonal antibodies in solid tumors: direct experimental evidence for a binding site. Cancer Res 52(19):5144-5153, (1992).

55. Campo E, Merino MJ, Liotta L, Neumann RD, Stetler-Stevenson WG: Distribution of the 72 kDa Type IV collagenase in non-neoplastic and neoplastic thyroid tissue. Human Pathology 23(12): 1395-1401, (1992).

56. John CS, Saga T, Kinuya S, Le N. Jeong JM, McAfee JG, Neumann RD, Reba RC, Paik CH: Preparation and characterization of [I-125] PAB: A potential malignant melanoma imaging radiopharmaceutical. J Nucl Med 33: 339-890, (1992).

57. Juweid M, Sato J, Paik C, Onay-Basaran S, Weinstein J, Neumann RD: A simple method for affinity purification of labeled monoclonal antibodies. Nud. Med. Biol. 20(3):311-316, (1993).

58. Sandrock D, Merino MJ, Norton JA, Neumann RD: Ultrastructural histology correlates with results of thallium-201/technetium-99m parathyroid subtraction scintigraphy. JNM 34(1):24-29, (1993).

59. Sandrock D, Lastoria S, Magrath IT, Neumann RD: The role of gallium-67 tumour scintigraphy in patients with small, non-cleaved cell lymphoma. Eur J Nuc Med 20(2): 119-122, (1993).

60. Jeong JM, Kinuya S, Paik CH, Saga T, Sood VK, Neumann RD, Reynolds JC, Carrasquillo JA: Reduction of pI prevents kidney uptake of avidin. J. Labeled CMPD Radiopharm 32:65-67, (1993).

61. Jeong JM, Kinuya S, Paik CH, Saga T, Sood VK, Neumann RD, Reynolds JC, Carrasquillo JA: Synthesis of Tc-99m MAG3-biotin conjugate as a billiary agent. J Labelled CMPD

Radiopharm 32:88-89, (1993).

62. John CS, Bowen WD, Saga T, Kinuya S, Vilner BJ, Baumgold J, Paik CH, Reba RC, Neumann RD, Varma VM: A new malignant melanoma imaging agent: synthesis, characterization and biodistribution of [^{125}I](2-piperidinylaminoethyl)4-Iodobenzamide, JNM, 34(12): 2169-2175, (1993).

63. Maurea S ; Cuocolo A ; Reynolds JC ; Tumeh SS ; Begley MG ; Linehan WM ; Norton JA ; Walther MM ; Keiser HR ; Neumann RD Iodine-131-metaiodobenzylguanidine scintigraphy in preoperative and postoperative evaluation of paragangliomas: comparison with CT and MRI. J Nucl Med 1993 Feb;34(2):173-938, (1993).

64. Maurea S, Cuocolo A, Reynolds JC, Choyke PL, Keiser HR, Neumann RD, Salvatore M. [Role of magnetic resonance in the study of benign and malignant pheochromocytomas. Quantitative analysis of the intensity of the resonance signal] Radiol Med (Torino) 85(6): 803-808, (1993).

65. Weiner R and Neumann RD. Cellular basis for elevated gallium-67 uptake in rheumatoid lung patient. J Nucl Med. 34(2): 351-353, (1993).

66. Neumann RD, Ruby AL, Ling GV, Schiffman P, Johnson DL. Ultrastructure and mineral composition of urinary calculi from horses. Am J Vet Res. 55(10): 1357-1367, 1994.

67. Saga T, Weinstein JN, Jeong JM, Heya T, Lee JT, Le N, Paik CH, Sung C, Neumann RD: Two-step targeting of experimental lung metastases with biotinylated antibody and radio-labeled streptavidin. Cancer Research, 54(8): 2160-2165, (1994).

68. Sung C, van Osdol WW, Saga T, Neumann RD, Dedrick RL, Weinstein JN: Streptavidin distribution in metastatic tumors pretargeted with a biotinylated monoclonal antibody: theoretical and experimental pharmacokinetics. Cancer Research, 54(8): 2166-2175, (1994).

69. Jeong JM, Kinuya S, Paik CH, Saga T, Sood VK, Neumann RD, Reynolds JC, Carrasquillo JA: Application of high affinity binding concept to radiolabel avidin with Tc-99m labeled biotin and effect of its pI on biodistribution. Nucl Med Biol., 21(7): 935-940, (1994).

70. Kinuya S, Jeong JM, Garmestani K, Saga T, Camera L, Brechbiel MW, Gansow OA, Carrasquillo JA, Neumann RD, Paik CH: Effect of metabolism on retention of In-111 labeled MoAb in liver and blood. JNM 35(11): 1851-1857, (1994).

71. Panyutin IG, Neumann RD: Sequence-specific DNA double-strand breaks induced by triplex forming ^{125}I labeled oligonucleotides. J Nucl Acids Res 22(23): 4979-4982, (1994).

72. Andrich MP, Neumann RD: The role of positron emission tomography imaging in early assesment of the antitumor impact of biologics and cytotoxics. Cur Opin Oncol 6(6):627-632, (1994).

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75. Geselowitz DA, Neumann RD: Quantitation of triple-helix formation using a photo-cross-linkable aryl azide/biotin/olignonucleotide conjugate. Bioconjugate Chem 6(4): 502-506, (1995).

76. Saga T, Weinstein JN, Heya T, Sato J, Kinuya S, Le N, Paik CH, Neumann RD: Targeting cancer micrometastases with monoclonal antibodies: a "binding site barrier:" PNAS

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78. Aloj L, Lang L, Jagoda E, Neumann RD, Eckelman WC: Evaluation of human transferrin radiolabeled with N-Sucinimidyl 4-[Fluoride-18] (Fluoromethyl) Bennzoate. J Nucl Med 37(8): 1408-1412, (1996).

79. McAfee J, Neumann RD: Radiolabeled peptides and other ligands for receptors overexpressed in tumor cells for imaging neoplasms. Nucl Med & Biol 23(6): 673-676, (1996).

80. Panyutin IG, Neumann RD: Sequence specific DNA breaks produced by triplex directed decay of iodine-125. Acta Oncologia 35(7): 817-823, (1996).

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83. Karamychev VN, Panyutin IG, Reed MW, Neumann RD: Effect of radionuclide linker structure on DNA cleavage by ^{125}I labeled oligonucleotides. Anti-sense & Nucleic Acid Drug Development. 7(6): 549-557, (1997).

84. Sedelnikova OA, Thierry, AR, Panyutin IG, Neumann RD: Radiotoxicity of iodine-125 labeled oligodeoxyribonucleotides in mammalian cells. JNM 39(8): 1412-1418, (1998).

85. Panyutin, IG, Neumann RD: Gene radiotherapy; gene targeted versus targeted by gene product (letter). J. Nucl Med 39(5): 928-929, (1998).

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91. Chakrabarti MC, Panyutin IG, Neumann RD, Drumm D, Carrasquillo JA: Delivery of DNA through the CD5 receptor using an avidin-biotin-T101 antibody conjugate system. Tumor Targeting. J Int Soc Tumour Targeting 1(1): 41-48, (1999).

92. Libutti SK, Choyke P, Carrasquillo JA, Bacharach S, Neumann RD: Monitoring Responses to Antiangiogenic Agents Using Non-invasive Imaging Tests. Cancer Jr Sci Amer Sept/Oct 5(5): 252-256, (1999).

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94. Malkov V, Panyutin I, Neumann R, Zurkin V, Camerini-Otero D: The arrangement of the three DNA strands witin the RecA protein mediated synaptic complexes. Biophys Jr 76: A130-A130, (1999).

95. Karamychev V, Panyutin I, Reed M, Neumann R: DNA cleavage by a I125-labeled minor groove binding agent conjugated to oligodexynucleotides. JNM 40(5): 1405, (1999).

96. Mezhevaya K, Winters TA, Neumann RD: Gene targetted DNA double strand break induction by ^{125}I-labeled triplex-forming oligonucleotides is highly mutagenic following repair in human cells. Nuc Acids Res 27(21): 4282-4290, (1999).

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