

dium-111-labeled mouse antimelanoma monoclonal antibody ZME-018. *J Nucl Med* 1987; 28:25-33.

Richard P. Spencer
University of Connecticut Health Center
Farmington, Connecticut

REPLY: Dr. Spencer proposes a unique and presumably useful method of evaluating the percentage of tumors imaged as a function of the quantity of antibody administered. This is done using a Michaelis Menten type analysis. There are concerns about the formula $A + T \rightleftharpoons AT \rightarrow (AT)$, in addition to those mentioned by Dr. Spencer.

1. The formula indicates that the antibody can dissociate back and forth to form a stable or internalized complex. However, it is possible that the degree to which each individual antibody is in equilibrium is dependent on its affinity, whether the antigen is shed from the surface and to what degree, and the extent to which internalization and/or modulation occurs. It is uncertain whether this formula would hold in all cases—for example, there are studies, such as the use of T 101 in leukemia, in which other variables may influence this hypothesis.

2. ^{111}In may dissociate to a small or great extent after antibody binding and is in equilibrium with transferrin in the serum (~5% of the indium per day is in equilibrium with this protein). With ^{131}I , there is considerable dehalogenation over time. This will affect calculation of actual uptake of the antibody isotope/complex.

Thus, this equation is an oversimplification of what is actually happening at the cell surface, although, as Dr. Spencer suggests, it may lead to useful approaches.

J. L. Murray
The University of Texas M. D. Anderson Hospital
and Tumor Institute
Houston, Texas

Monitoring of Radioactive “Dirty Linen” After Iodine-131 Therapy

TO THE EDITOR: In Los Angeles County, trash that is to be dumped into sanitary landfills is routinely monitored at the site for radioactive contamination (1). Generally speaking, waste from patients who have had nuclear medicine diagnostic procedures is not intense enough to cause a detector external to the dumpster to register a count rate warranting investigation (ten times background). The Los Angeles County Division of Radiation Management will permit the trash to be dumped if after investigation detected radioactivity is related to nuclear medicine patient excreta.

Many hospitals have purchased radiation detector systems to monitor trash bins before they leave the hospital grounds, in order to prevent unnecessary incidents at landfills. Recently, however, a problem occurred when linens, contaminated with I-131 from a therapy patient dose (20 mCi), were sent to a laundry service. En route the laundry truck was stopped by the California Highway Patrol at a weighing station and radiation detectors detected a count rate greater than 20 times background. The hospital health physicist was notified and the radioactive linen was brought back to the hospital to be stored for decay.

It is suggested that hospitals monitor laundry that leaves the hospital grounds just as they do with trash. Radioactive linen from therapy patients should be monitored and held for radioactive decay, although in the vast majority of cases the types and quantities of radioactive material involved will not constitute a risk to the public health.

References

1. Ketchum L. LA nuclear medicine community improves radiation monitoring at landfills. *J Nucl Med* 1985; 26:336-337.

Carol S. Marcus
Nuclear Medicine Outpatient Clinic
Harbor-UCLA Medical Center
Torrance, California
Joseph E. Karbus
Los Angeles County Occupational Health and
Radiation Management
Los Angeles, California

Correction: Design, Preparation, and Biodistribution of a Technetium-99m Triaminedithiol Complex to Assess Regional Cerebral Blood Flow.

TO THE EDITOR: In the article by Lever, Burns, and Kervitsky et al. appearing in *J Nucl Med* 1985; 26:1287-1294, Figure 4 should be replaced with the one shown below. Intermediate 2, the fraction isolated from the crude reaction mixture, was incorrectly characterized as the monocyclic diamine. The correct structure is the bicyclic diamine, which resulted from an intramolecular ring closure during sodium borohydride reduction. Spectroscopic experiments on 2 permit the unambiguous assignment of the methine carbon. An Insensitive Nuclei Enhanced by Polarization Transfer (INEPT) sequence assigns the peak at 91.5 ppm to C6 in the carbon NMR spectrum and the heteronuclear 2D chemical shift correlation spectrum assigns the singlet at 3.53 ppm to C6-H

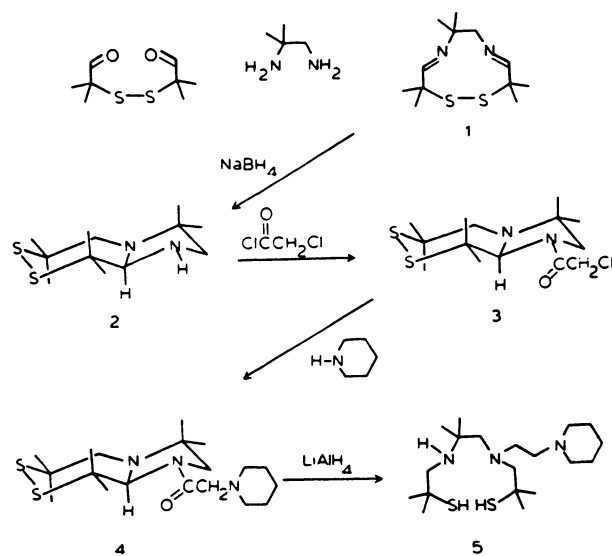


FIGURE 4
Triaminedithiol ligand synthesis.

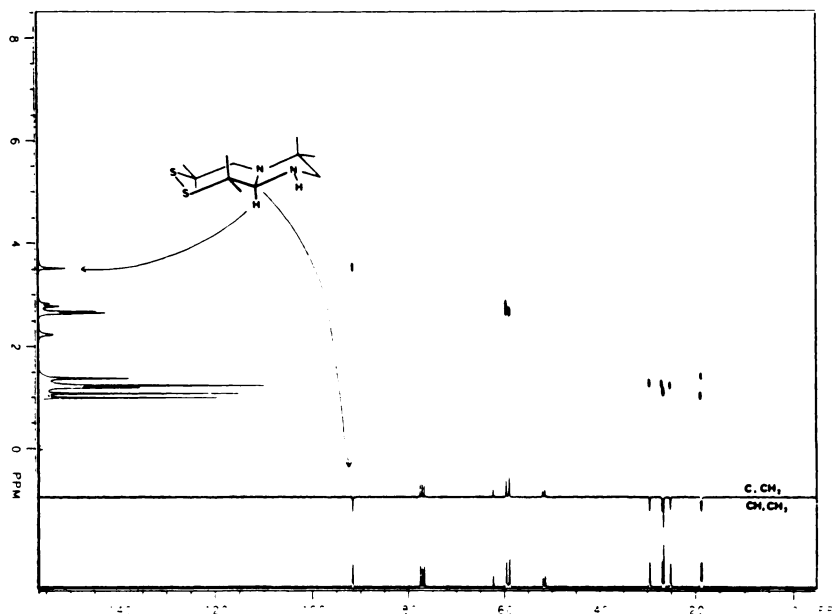


FIGURE 11
NMR spectra showing unambiguous assignment of methine carbon.

in the proton NMR spectrum (Figure 11 added in this correction). The acylation and displacement reactions which yield intermediates 3 and 4 are derived from this bicyclic structure as well. The lithium aluminum hydride reduction step does, however, give N-piperidinyethyl DADT 5 as originally described. NMR pulse sequencing experiments performed in a fashion similar to that described above on 5, showed no evidence of a methine carbon. This data, in conjunction with our previously reported data, verify the original structural assignment of 5. Characterization of the technetium-99 (^{99}Tc) complexes prepared from ligand 5 (1, 2) support the structural assignments given for the complexes formed on the $^{99\text{m}}\text{Tc}$ level. We thank Drs. Alummoottil V. Joshua and John R. Scott (Edmonton Radiopharmaceutical Centre, University of Alberta), who informed us of their mass spectroscopic evidence which suggested that the structure of compound 2 was misassigned.

References

1. Epps LA, Burns HD, Lever SZ, et al. The chemistry and biology of technetium (V) oxo complexes of N-piperidinyethyl diaminodithiolate for brain imaging. In Nicolini M, Bandoli G, Mazzi U, eds. *Technetium in Chemistry and Nuclear Medicine 2*. New York: Raven Press, 1986:171-175.
2. Epps LA, Burns HD, Lever SZ, et al. Brain imaging agents: synthesis and characterization of (N-piperidinyl-

ethyl hexamethyl diaminodithiolate) oxo technetium (V) complexes. *Int J Appl Radiat Isot*: in press.

Susan Z. Lever
Divisions of Nuclear Medicine
and Radiation Health Sciences
The Johns Hopkins Medical Institutions
Baltimore, Maryland

Correction: Table of Contents, *J Nucl Med* 1987; 28: April

The Technical Notes section of the April 1987 *JNM* Table of Contents should have included the following entry, which appears on pp. 521-523:

Detection of Gastroduodenal Ulcers Using Technetium-99m-Labeled Sulcrafate

Nicole Puttemans, Michele Lambert, Pierre P. Andre, Serge Jamsin, Daniel Balikdjian, and Francois Lustman

Correction: Adrenoleukodystrophy: Imaging with CT, MRI, and PET

Figures 3A and 3B appearing on p. 526 of "Adrenoleukodystrophy: Imaging with CT, MRI, and PET, by Volkow et al. (*J Nucl Med* 1987; 28:524-527) represent images for cerebral blood flow and FDG of the same level incorrectly placed 180° from one another. Figure 3A should be turned 180° so that it correctly shows the inferior portion as the superior portion. We regret any inconvenience this may have caused the authors and our readers.