LETTER FROM THE EDITOR

Reflections: 1975–1984

The articles published in *The Journal of Nuclear Medicine* have mirrored the changes that have occurred in research and practice in our specialty. The first radionuclide tracer techniques developed were designed to measure pathophysiologic processes. During the era when nuclear medicine procedures were the major noninvasive methods available for anatomic diagnoses, the use of radiotracers and techniques was oriented toward the definition of pathology as reflected by the "static" state. Subsequently, newer diagnostic modalities supplanted the most commonly requested radionuclide studies, and dictated a reorientation of our investigations and practice, i.e., to apply the tracer method as a means of defining physiology, metabolism, and pathology. A review of the *Journal* content over the past ten years shows that the number of articles on anatomic brain and liver imaging, for example, has decreased markedly, whereas those concerning cardiac function, myocardial perfusion, hepatobiliary function, gastrointestinal pathophysiology, and bone metabolism have increased strikingly. It is noteworthy that for the early procedures that were essentially functional and have remained so, i.e., thyroid and renal studies, the number of articles annually published has changed little during these past ten years. It is apparent that in the professional lifetime of many of us, we have seen the complete circle of diagnostic approaches in nuclear medicine techniques—dynamic to static to dynamic.

Recent *Journal* publications signal the emergence of several new diagnostically significant functional studies. These articles indicate that the measurement of cerebral blood flow by single photon emission tomography and the in vivo detection of cancer with radiolabeled antibody procedures are ready for clinical trials. In addition, articles on positron tomographic imaging and on appropriate radiotracers have established the effectiveness of this modality to delineate physiologic pathways, identify receptors, evaluate metabolism, etc. Not long ago, it was generally believed that positron imaging would be limited to large centers only; however, recent designs of reasonably priced imaging equipment, availability of positron sources from generators, and the development of an "automated table top" cyclotron will make positron imaging available to many more medical facilities. Since the investigations reported presage the almost limitless applications of this technique, positron imaging will be a necessary diagnostic tool in the general medical arena.

Can we now address the point Henry Wagner made in a *Journal* editorial in 1977: "Wouldn't it be very sad if nuclear medicine reached a turning point and did not turn?" His was a provocative question and, by inference, an accusation! We in the Society have been examining serious problems that confront us, such as recruitment of clinical and basic scientists, the role of nuclear medicine in medical practice, and the necessity for education of clinicians with respect to how nuclear medicine can contribute to the diagnostic process. The fundamental point, however, is that we have been negligent in anticipating changes in the practice of medicine but rather have directed our attention to the "symptoms" we have experienced due to these changes. In his editorial Wagner also used the expression, "the only game in town," to describe the singular role of nuclear medicine during the 1960s. In retrospect, this period nearly parallels the interval between the report by Kuhl and Edwards in 1963 on the development of single photon emission tomography and the installation of the first x-ray computer tomographic instruments in the United States, 1973. The influence of x-ray tomography on the practice of medicine in nearly all areas is history. If there had been enthusiastic pursuit of radionuclide tomography during the ten years following the initial report, one can only speculate on how different the impact of transmission computerized tomography may have been on medical practice. It is a sad commentary that nearly another ten years had to pass before industry and nuclear medicine scientists and practitioners demonstrated a serious interest in emission tomography. Also, during this same period, beginning more than 20 years ago, antibodies were raised to tumor antigens and labeled with radionuclides. The obvious progression was the in vivo detection of cancer with these tracer antibodies. Yet, only within the past few years have there been purposeful cooperative studies between immunology and nuclear medicine disciplines. The applications of immunologic diagnoses by means of the tracer technique are far-reaching, extending beyond the detection of neoplasms to the delineation of other diseases that have an immune basis and to radioimmunotherapy.

Unfortunately, it is far more difficult to regain primacy in a field than to retain it; therefore, we must now show initiative in aggressively pursuing opportunities currently available. For example, very sophisticated computer software applicable to all procedures in nuclear medicine is being declassified by the military establishment, and

we should immediately acquire and incorporate it into our techniques. Concerted efforts to provide antibodies of high specificity are underway from both academic and commerical sources, and we should strive to make radioimmunodetection a clinical tool, routinely available. To address Henry Wagner's comment—we can make the turn only if we have the vision, the dedication, and the strength of purpose to apply a steady, diligent effort. A broad view of the field assures that the ensuing years can be productive and exciting, and the *Journal*, as the organ of our Society, will continue to record our progress through the publication of significant new work.

This is the final issue of *The Journal of Nuclear Medicine* under my tenure as editor. Our goal has been to publish those papers that presented a new application of basic procedures, a new approach to the study of disease processes, an interesting investigation with potential for further development, and information on valuable clinical experiences. These past ten years have been stimulating and rewarding, for I have had an unique opportunity to be intimately aware of the work of many scientists. The opportunity to interface with the authors and reviewers has been a privilege and pleasure. I cannot adequately express my appreciation to the dedicated cadre of reviewers, our volunteer consulting staff, for their devotion of time and expertise to the critical evaluations of manuscripts. It is widely affirmed by the scientific community that the peer-review system promotes the validity of scientific publications, and the intrinsic quality of a scientific journal is directly related to the evaluation of the submitted manuscripts. Our journal has attained primacy in the field of radiological sciences, and this accomplishment can be attributed to the untiring efforts of those on the Editorial Board and of the reviewers. We gratefully acknowledge their support.

Nathaniel M. Alpert, Ph.D.
Bernhard G. Anderson, M.S.
C. Robert Appledorn, M.D.
Carroll D. Arnett, Ph.D.
Harold L. Atkins, M.D.
Stephen L. Bacharach, Ph.D.
Ronald Baldwin, Ph.D.
Jorge R. Barrio, Ph.D.
William H. Beierwaltes, M.D.
Anthony Benedetto, M. Eng.
Richard S. Benua, M.D.
Harvey Berger, M.D.
Steven R. Bergmann, Ph.D.
Jesus A. Bianco, M.D.
Gerald Bida, Ph.D.
Donald Biello, M.D.
Rodney E. Bigler, Ph.D.
William H. Blahd, M.D.
M. Donald Blaufox, M.D., Ph.D.
Ralph Blumhardt, M.D.
Frederick J. Bonte, M.D.
Charles M. Boyd, M.D.
Lewis Braverman, M.D.
Manuel L. Brown, M.D.
Paul Brown, Ph.D.
Donald J. Buchsbaum, Ph.D.
Bill L. Byrd, B.S.
James H. Caldwell, M.D.
Ronald J. Callahan, Ph.D.
Leopoldo L. Camin, Ph.D.
James E. Carey, M.S.
Vicente J. Caride, M.D.
Edward A. Carr, M.D.
Dennis Chapman, B.S.
N. David Charkes, M.D.
Lakshman Rao Chervu, Ph.D.
Charles H. Chestnut, III, M.D.
Robert B. Chodos, M.D.
Paul Christian, M.S.
Laurence Clarke, Ph.D.
James J. Conway, M.D.
Arthur J. L. Cooper, Ph.D.
Robert J. Cowan, M.D.
Trevor D. Cradduck, Ph.D.
Frederick L. Datz, M.D.
David K. Davis, M.D.
Gerald Louis DeNardo, M.D.
Stephen E. Derenzo, Ph.D.
Edward A. Deutsch, Ph.D.
Mrinal Dewanjee, Ph.D.
Paul W. Doherty, M.D.
Peggy Domstad, M.D.
David E. Drum, M.D., Ph.D.
Eva V. Dubovsky, M.D.
Howard Jerry Dworkin, M.D.
William Charles Eckelman, Ph.D.
Gunes Ege, M.D.
Thomas Emery, Ph.D.
Ronald Gene Evens, M.D.
Melvin H. Farmelant, M.D.
Robert Fisher, M.D.
Keith A. A. Fox, M.D.
Leonard M. Freeman, M.D.
John E. Freitas, M.D.
Jerry W. Froelich, M.D.
Brian M. Gallagher, Ph.D.
Ernest V. Garcia, Ph.D.
Gary Franklin Gates, M.D.
Mary Esther Gaulden, Ph.D.
Alan S. Gelbard, Ph.D.
Erica A. George, M.D.
James Ginos, Ph.D.
David M. Goldenberg, M.D., D.Sc.
Richard A. Goldstein, M.D.
David Alexander Goodwin, M.D.
Michael L. Goris, M.D., Ph.D.
Colum Gorman, M.D.
Lance Gould, M.D.
Michael M. Graham, M.D., Ph.D.
Michael Vincent Green, M.S.
Milton D. Gross, M.D.
Joel I. Hamburger, M.D.
Robert Hanson, Ph.D.
John C. Harbert, M.D.
H. Theodore Harcke, M.D.
Randall Hawkins, M.D.
Thomas P. Haynie, M.D.
Marguerite T. Hays, M.D.
Sherman Lee Heller, Ph.D.
William R. Hendee, Ph.D.
Robert E. Henkin, M.D.
Robert E. Henry, M.D.
Peter C. Herscovitch, M.D.
AduP. Heyns, M.D.
Thomas C. Hill, M.D.
Donald J. Hnatowich, Ph.D.
Judith E. Ho, M.D.
Kurt Hofer, Ph.D.
Paul B. Hoffer, M.D.
Richard A. Holmes, M.D.
Dennis R. Hoogland, Ph.D.
Matthew Horn, M.D.
Henry Huang, Ph.D.
Jerome G. Jacobstein, M.D.
Ronald J. Jaszczak, Ph.D.
Gerald S. Johnston, M.D.
Alfred Eric Jones, M.D.
Robert H. Jones, M.D.
William D. Kaplan, M.D.
A. I. Kassis, Ph.D.
John A. Katzenellenbogen, Ph.D.
Andrew M. Keenan, M.D.
Ban An Khaw, Ph.D.
Michael R. Kilbourn, Ph.D.

Michael A. King, Ph.D.
Dennis L. Kirch, M.S.E.E.
Peter T. Kirchner, M.D.
Raj Kishore, Ph.D.
George Klee, M.D.
Linda C. Knight, Ph.D.
Kenneth Koral, Ph.D.
Jason A. Koutcher, M.D., Ph.D.
Janine Krivokapich, M.D.
J. F. Lamb, Ph.D.
Jack L. Lancaster, Ph.D.
Steven Larson, M.D.
John C. Lasher, M.D.
Myron L. Lecklitner, M.D.
Thomas K. Lewellen, Ph.D.
R. E. Lewis, B.S.
Max S. Lin, M.D., Ph.D.
Tz-Hong Lin, Ph.D.
Bruce R. Line, M.D.
John B. Little, M.D.
Michael D. Loberg, Ph.D.
Alan Lockwood, M.D.
Robert G. Luke, M.D.
Kenneth P. Lyons, M.D.
William J. MacIntyre, Ph.D.
Leon S. Malmud, M.D.
Carla Mathias, M.S.
Alan Maurer, M.D.
R. B. Mazess, Ph.D.
Kenneth R. McCormack, M.D.
Ian Ross McDougall, M.D.
Kenneth A. McKusick, M.D.
Charles E. Metz, Ph.D.
James Meyer, M.D.
Tom R. Miller, M.D., Ph.D.
Mark Mintun, M.D.
Frederick Seymore Mishkin, M.D.
David C. Moses, M.D.
Nizar A. Mullani, B.S.
Wil B. Nelp, M.D.
Eileen L. Nickoloff, Ph.D.
Martin Nissel, M.D.
Adrian Nunn, Ph.D.
Martin L. Nusynowitz, M.D.
William Henry Oldendorf, M.D.
Robert E. O'Mara, M.D.
Bernard E. Oppenheim, M.D.
Zvi Oster, M.D.
Fyllis Otsuka, Ph.D.
Susan Ott, M.D.
Henry C. Padgett, Ph.D.
C. H. Paik, Ph.D.
C. Leon Partain, M.D., Ph.D.
William A. Pettit, Ph.D.
Richard N. Pierson, M.D.
Robert E. Polcyn, M.D.
E. James Potchen, M.D.
Malcolm R. Powell, M.D.
William Powers, M.D.
David F. Preston, M.D.
David C. Price, M.D.
Marcus E. Raichle, M.D.
Richard C. Reba, M.D.
Lawrence A. Reduto, M.D.
Robert Richardson, Ph.D.
James L. Ritchie, M.D.
James S. Robertson, M.D., Ph.D.
William L. Rogers, Ph.D.
Frank David Rollo, M.D., Ph.D.
Joel Rosen, M.D.
David A. Rottenberg, Ph.D.
Thomas George Rudd, M.D.
Gerald A. Russ, Ph.D.
Charles D. Russell, M.D., Ph.D.
Gopal B. Saha, Ph.D.
Nagichettiar Satyamurthy, Ph.D.
Donald S. Schauwecker, M.D., Ph.D.
Heinrich R. Schelbert, M.D.
Peter B. Schneider, M.D.
Markus Schwaiger, M.D.
Roger H. Secker-Walker, M.D.
John B. Selby, M.D.
Rex B. Shafer, M.D.
Brahm Shapiro, M.B., Ch.B., Ph.D.
C-Y Shiue, Ph.D.
Jon Durbin Shoop, M.D.
Aslam R. Siddiqui, M.D.
Barry A. Siegel, M.D.
Jeffry Alan Siegel, Ph.D.
Michael E. Siegel, M.D.
Guy H. Simmons, Ph.D.
James C. Sisson, M.D.
Robert Allan Slutsky, M.D.
Richard W. Smalling, M.D., Ph.D.
James Smith, Ph.D.
Stanford Smith, Ph.D.
Heinz Sochor, M.D.
Vincent J. Sodd, Ph.D.
Grant Somes, Ph.D.
James A. Sorenson, Ph.D.
Richard P. Spencer, M.D., Ph.D.
Stewart M. Spies, M.D.
Victor M. Spitzer, Ph.D.
Michael Stabin, M.S.
Zenon Steplewski, M.D.
Ernest M. Stokely, Ph.D.
John R. Stratton, M.D.
Gopal Subramanian, Ph.D.
Dennis P. Swanson, M.S.
Donald C. Swartzendruber, Ph.D.
Wilfrido M. Sy, M.D.
Andrew T. Taylor, Jr., M.D.
Heinrich Taegtmeyer, M.D., Ph.D.
W. Newlon Tauxe, M.D.
M. Terzaghi-Howe, D.Sc.
Mathew L. Thakur, Ph.D.
Frank Deaver Thomas, M.D.
Stephen R. Thomas, Ph.D.
Gene B. Trobaugh, M.D.
Min-Fu Tsan, M.D., Ph.D.
David A. Turner, M.D.
Robert Leo Ullrich, Ph.D.
Patricia C. Vacca, M.S.
Gary Vandeventer, M.D.
Lester Van Middlesworth, M.D.
Michael Vannier, M.D.
Vijay M. Varma, M.D.
Denny D. Watson, Ph.D.
David A. Weber, Ph.D.
Henry Nelson Wellman, M.D.
Donald M. Wieland, Ph.D.
James T. Willerson, M.D.
Lawrence E. Williams, Ph.D.
George A. Wilson, M.D.
Yukio Yano, B.S.
Pat Zanzonico, Ph.D.
Barry L. Zaret, M.D.

FRANK H. DeLAND, M.D.
Editor