



Society of Nuclear Medicine

CENTRAL



CHAPTER IN THE NEWS

July 2000

Report from the Chapter President

It is with great pleasure that I begin my term as president of the Central Chapter of the Society of Nuclear Medicine. The Central Chapter is the largest chapter of the SNM. As in the case of the SNM, our mission is to enhance learning of clinical nuclear medicine among the members of the chapter. By concentrating on this mission, we will ensure that delivery of patient care is optimal. Also to follow the spirit of the law we should send our message to the public.

The spring meeting that just took place in Dearborn, Michigan under the

organization provided by Dr. Kasty Karvelis and Ms. Jeanne Mocieri, the local Program Chairs, and coordinated by Executive Director Renae Henkin was a magnificent experience enabling us to put our heads together for the benefit of our clinical practice today and tomorrow.



Jesus A. Bianco, M.D.

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Report from the Technologist Section President

I am very excited about beginning my year as Technologist Section President! The Annual Meeting in Detroit a few weeks ago was a resounding success! A round of applause goes to Dr. Karvelis and Jeanne Mocieri, of Henry Ford Hospital, and Renae Henkin, our Executive Director, for all their efforts in organizing the program!

The business portion of the meeting, conducted the day prior to the educational program, went very well. Our treasurer reported that after a few rocky years financially, we now are operating in the

black and once again are on solid ground. In view of the fact that we will not be holding a fall meeting this year, we have moved our roadshow to the fall. The program will follow the same format as in the past—1/2 day, Saturday program providing 4 CE credits.



Jennifer L. Bryniarski, CNMT

» p7

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Cardiac Quantitative Software

Edward P. Ficaro, Ph.D., University of Michigan Health System, Ann Arbor, MI

This article stems from a presentation at the last midwinter meeting of the Society of Nuclear Medicine and was originally published in the April 2000 issue of the Computer and Instrumentation Council newsletter. It has been reproduced here by kind permission of Dr. Ficaro and the Computer and Instrumentation Council.

Dr. Ficaro is a co-author of the 3D-MSPECT software described in his article, below, and he has a financial interest in this product. The authors of the other software packages reviewed in the article were given an opportunity to read and edit the portions of the manuscript describing their software prior to publication.

INTRODUCTION

Quantification software for myocardial perfusion SPECT studies has played an important role in aiding the physician in diagnosing coronary artery disease. The parameters of interest are perfusion defect classification (i.e., normal, ischemic, scar), segmental perfusion scoring, transient ischemic dilatation, left ventricular volumes and ejection fraction, myocardial mass, systolic wall thickening, and left ventricular wall motion. These estimates have helped in (1) defining the limits of normalcy for both perfusion and function, (2) the recognition of perfusion artifacts, and (3) improving reproducibility by minimizing interobserver variability. Developments in the areas of expert systems for both disease detection and quality control now appear possible as the algorithms for quantification of perfusion and functional parameters mature.

At the 2000 SNM Mid-Winter meeting, four software programs which provide an integrated environment for the quantification of both perfusion and functional information for the left ventricle were described. These programs include (1) the QGS and QPS programs from Cedars-Sinai Medical Center, (2) the Emory Cardiac Toolbox from Emory University, (3) CardioMatch from HealthCenter Internet Services, and (4) 3D-MSPECT from the University of Michigan. A synopsis of this presentation is presented.

QGS AND QPS

Quantitative gated SPECT (QGS) and Quantitative Perfusion SPECT (QPS) were developed by Cedars-Sinai Medical Center. QGS is a fully automated program for the

estimation of left ventricular functional parameters. It has been commercially available for nearly 5 years and was instrumental in the proliferation of gated SPECT myocardial perfusion studies. The surface detection algorithm is based on an ellipsoidal sampling model with Gaussian fitting and mass conservation for wall thickening estimation. QGS provides volumetric data for each acquired frame in the cardiac cycle, left ventricular ejection fraction, regional wall motion and wall thickening polar maps with database comparison, wall motion and wall thickening segmental scoring maps, and 2D and 3D cinematic displays for the visual interpretation of wall motion and wall thickening. Validation of the left ventricular ejection fraction and volumes has been performed with first pass data, MUGA, 2D and 3D echo, contrast ventriculography and magnetic resonance imaging. The mean correlation coefficient from these validation studies comprised of over 780 studies was 0.88.

The QPS package provides fully automated processing for perfusion estimates using the surface estimator of the QGS program. The user interface for QPS and QGS are virtually identical, each providing many of the same recognizable features. The QPS program provides stress/rest polar map perfusion defect and reversibility analysis, automated segmental scoring analysis for prognostic information, 2D and 3D comparative stress/rest displays for the visual interpretation of perfusion abnormalities, and a built-in perfusion database generator. The segmental scoring in QPS provides the user 20 segment overlays on the 2D and 3D images for the identification of each of the segmental regions when the user is visually scoring the perfusion data.

EMORY CARDIAC TOOLBOX (ECTb)

The Emory Cardiac Toolbox (ECTb) is an integrated software application that provides functional and perfusion estimates in a single program. Processing is fully automated using a surface generator utilizing the Fourier size-intensity relationship for estimation of regional wall thickening. The ejection fraction estimates were validated against MRI data from 31 patients. The ECTb and MRI EF values had a correlation coefficient of 0.81. Compared to MRI estimates for these patients, the mean EF differences were –

0.1% for ECTb and –8.4% for the QGS program. For functional parameters, the ECTb program displays a volumetric curve through the cardiac cycle, myocardial mass, a regional wall thickening polar map, and 2D and 3D cinematic displays for the visual interpretation of wall motion and wall thickening. For perfusion estimates, the ECTb provides the familiar CEQUAL polar map analyses, defect blackout (extent), and severity and stress/rest reversibility polar maps. Normal perfusion databases are provided for nearly all of the standard perfusion SPECT protocols. Automated segmental scoring of the perfusion data is also provided for prognostic information. The ECTb program also provides a couple of noteworthy distinguishing features. The 3D surface rendered volumes can be viewed with coronary tree overlays as an aid in identifying the particular arterial branch associated with a perfusion abnormality. While these coronary trees currently are standard templates (right or left dominant), research in this area may soon import patient-specific coronary trees obtained in the cardiac cath lab. ECTb also provides an expert reader for the perfusion data based on a knowledge set of rules and abnormality thresholds based on receiver operating characteristic (ROC) analyses. The end result to the user is a synopsis of the perfusion findings (i.e., large fixed perfusion defect in the LAD). Each of the findings can be expanded via a button click providing a dialog box with text justifying the finding. This secondary “expert” read, while not intended to replace the expert read of the physician, is an excellent teaching tool for the nuclear medicine physician in training.

CARDIOMATCH

The CardioMatch program provides quantitative analysis tools for SPECT myocardial perfusion studies. This program, distributed by HealthCenter Internet Services, Inc., operates in the Windows NT environment and reads both DICOM and Interfile formatted image files. A gradient operator is used to find the endocardial and epicardial surfaces of the left ventricle. CardioMatch is unique in its analysis and identification of perfusion abnormalities. Each heart is oriented to a standard 3-dimensional template using a patented elastic transformation. With this process, stress/rest or any serial combination of studies is automatically registered, thus minimizing errors associated with misregistration. The

stress and rest perfusion information is then mapped to the standard template with depth information retained, unlike conventional polar map analysis. The stress and rest distributions are compared to normal perfusion distributions and to each other for the quantification of defect extent, severity, location, reversible extent and percent recoverability. Defect quantification is measured as a percent of myocardial volume. The comparative 3D displays and the analysis algorithms were designed to minimize observer variability and better identify and classify perfusion defects. Validation of the gated analysis of volumetric and EF values using this surface generator is currently work in progress.

3D-MSPECT

The 3D-MSPECT software package, developed at the University of Michigan, provides an integrated environment for estimating functional and perfusion information with significant flexibility in the input requirements and output displays. The surface estimation algorithm for 3D-MSPECT utilizes 2D and 1D weighted splines which use the estimated curvature of the heart to "fill in" missing data (i.e., perfusion defects) while minimizing the inclusion of splachnic activity. The EF validation with 89 patients with contrast ventriculographic data was 0.89. In the same patient population, the correlation between 3D-MSPECT and QGS was 0.96. For functional assessments, 3D-MSPECT provides a volume curve throughout the cardiac cycle, left ventricular ejection fraction, 2D and 3D regional wall motion and wall thickening polar maps with database comparison, wall motion and wall thickening segmental scoring maps, and 2D and 3D cinematic displays for the visual interpretation

of wall motion and wall thickening interpretations. For perfusion estimates, 3D-MSPECT provides stress/ rest polar map perfusion defect and reversibility analysis, automated segmental scoring analysis for prognostic information, and 2D and 3D comparative displays for the visual interpretation of perfusion abnormalities. For gated studies, end diastolic and end systolic polar maps are available with normal database comparison. Circumferential profile analysis with normal database comparison is also provided for all normalized polar map data.

The distinguishing features of the 3D-MSPECT are its flexibility in regard to input requirements and a built-in database generator for creating a site-specific normals database for either perfusion or function. 3D-MSPECT is protocol independent, displaying up to 3 studies for comparative display. Input files are automatically sorted into predefined layouts, which allows pulldown access to stress/rest, stress/delay, stress/rest/delay, or between uncorrected (NC) and attenuation corrected (AC) stress/rest combinations. This program included several design requirements for the clinic performing attenuation corrected studies with its capability to toggle between NC and AC and its capability to combine the NC and AC data on the same display screen for comparative display.

CONCLUSION

For nuclear cardiology to compete with other modalities for the assessment of left ventricular function and perfusion, sophisticated quantification software is essential. The four quantitative software packages described provide well-validated functional and perfusion information for myocardial

perfusion SPECT studies. While each program provides a common set of functional and perfusion parameters to aid the physician in diagnosing coronary artery disease, each of the programs also has distinguishing characteristics. In general, it is highly recommended to include quantification software routinely in the nuclear cardiology clinic or lab. As for a specific recommendation, the software application(s) of choice is the one that best suits the needs of your clinic.

BIBLIOGRAPHY

1. Faber TL, Cooke CD, Folks RD, Vansant JP, Nichols KJ, DePuey EG, Pettigrew RI, Garcia EV. Left ventricular function and perfusion from gated SPECT perfusion images: An integrated method. *J Nucl Med* 1999; 40:650-659.
2. Ficaro EP, Kritzman JN, Corbett JR. Development and clinical validation of normal Tc-99m sestamibi database: Comparison of 3D-MSPECT to CEQUAL. *J Nucl Med* 1999; 40: 125P.
3. Ficaro EP, Quaiñe RA, Kritzman JN, Corbett JR. Accuracy and reproducibility of 3D-MSPECT for estimating left ventricular ejection fraction in patients with severe perfusion abnormalities. *Circulation* 1999; 100: I-26.
4. Germano G, Kiat H, Kavanagh PB, Moriel M, Mazzanti M, Su H, Van Train KF, Berman DS. Automatic quantification of ejection fraction from gated myocardial perfusion SPECT. *J Nucl Med* 1995; 36:2138-2147.
5. Slomka PJ, Hurwitz GA, Stephenson J, Craddock T. Automated registration and sizing of myocardial stress and rest scans to three-dimensional normal templates using an image registration algorithm. *J Nucl Med* 1995; 36: 1115-1122.

BUSINESS COMMUNICATIONS

Business communications concerning advertising should be sent to Renae Henkin, Central Chapter of SNM, Inc., 3651 Red Bud Court, Downers Grove, IL 60515-1352 (e-mail CCSNM@mindspring.com, voice 630-686-6187, and fax 630-971-8103). Advertising rates for the 2000/2001 calendar year are \$250 for half-page and \$500 for full-page advertisements.

Nuclear Medicine Now! It Isn't Planar Anymore!

CHICAGO, IL—September 9, 2000

Loyola University Medical Center

Stritch School of Medicine/Tobin Hall
2160 S First Avenue, Maywood, IL 60513
Coordinator: Rebecca Sajdak, CNMT
Rsajdak@lunis.luc.edu (708) 216-3777

*Vendor Support: ADAC Laboratories and
Siemens Medical Systems*

Principles of SPECT and PET Imaging

8:00-9:00 Mark Groch, PhD
Northwestern Memorial Hospital

Coincidence Imaging

9:00-10:00 Robert E. Henkin, MD
Loyola University Medical Center

Filters in Nuclear Medicine

10:15-11:15 James Halama, PhD
Loyola University Medical Center

Artifacts

11:15-12:15 Behrouz Khanvali, BSE, CNMT
ADAC Laboratories and
Sumati Nathan, CNMT
Loyola University Medical Center

CLEVELAND, OH—September 16, 2000

MetroHealth Medical Center

Scott Auditorium/2500 Metrohealth Dr.
Cleveland, OH 44109-1900 (216)778-5453
Coordinators: Jennifer Bryniarski, Marconi Medical
Systems, and Ridgely Conant, Radiation Safety Officer

Vendor Support: Marconi Medical Systems

Principles of SPECT and PET Imaging

8:00-9:00 Lina Mehta, MD
University Hospitals of Cleveland

Coincidence Imaging

9:00-10:00 Jennifer Bryniarski, BS, CNMT
Marconi Medical Systems

Filters in Nuclear Medicine

10:15-11:15 Donald R. Neumann, MD, PhD
Cleveland Clinic Foundation

Artifacts

11:15-12:15 Ridgely Conant, RSO
MetroHealth Medical Center

ROCHESTER, MN—September 23, 2000

Mayo Clinic

Mayo Clinic Building, Judd Hall (subway level)
101 First Street SW
Rochester, MN 55905
Coordinator: Joseph Wieseler, CNMT (507) 284-8472
Vendor: ADAC Laboratories

Principles of SPECT and PET Imaging

8:00-9:00 Brad Kemp, PhD
Mayo Clinic

Coincidence Imaging

9:00-10:00 TBA

Filters in Nuclear Medicine

10:15-11:15 Michael K. O'Connor, Ph.D.
Mayo Clinic

Artifacts

11:15-12:15 Michael K. O'Connor, Ph.D.
Mayo Clinic

INDIANAPOLIS, IN—October 7, 2000

St. Vincent Hospital/Cooling Auditorium

2001 W. 86th Street
Indianapolis, IN 46260

Coordinators: James Jeffery, BS, CNMT
(765) 747-3356 and Robert Schenkenfelder, BS, CNMT
(317) 228-6058

*Vendors: Syncor International and DuPont
Radiopharmaceuticals*

Principles of SPECT and PET Imaging

8:00-9:00 Kevin Perry, BS, CNMT
IU Hospital, Clarian Health Partners

Coincidence Imaging

9:00-10:00 Donald Schauwecker, MD, PhD
Indiana University School of Medicine

Filters in Nuclear Medicine

10:15-11:15 TBA

Artifacts

11:15-12:15 Edward Wroblewski, MA
Medical Physics Consultants, Inc.

GRAND RAPIDS, MI—October 7, 2000

Metropolitan Hospital

1919 Boston St. SE
Grand Rapids, MI 49506-4199

Coordinators: Dan Mapes, CNMT and Lisa Hazen, BS, CNMT
(616) 252-7165 (Dan Mapes)

Principles of SPECT and PET Imaging

8:00-9:00 TBA

Coincidence Imaging

9:00-10:00 TBA

Filters in Nuclear Medicine

10:15-11:15 TBA

Artifacts

11:15-12:15 TBA

The Central Chapter will be applying for
4.0 of VOICE and IDNS CE credit for the
Fall 2000 Roadshow Program.

Review of Cardiac Updates in Nuclear Medicine

J.A. Bianco, MD, University of Wisconsin Medical School, Madison, WI

The Society of Nuclear Medicine recently organized a midwinter meeting (New Orleans, LA) on *Quantitative Cardiac Imaging*. Steve Glick and Robert Hendel of the Computer/Instrumentation and Cardiovascular councils organized the meeting. Background information and pertinent references on quantitative cardiac imaging can be found in *Seminars in Nuclear Medicine* 29:192, 1999.

It is known that information on relative myocardial perfusion obtained from myocardial perfusion imaging (MPI) fails to address the issue of balanced perfusion abnormalities in patients with severe triple vessel coronary disease or to address the issue of the correlation between the degree of perfusion abnormality and the extent of coronary arterial stenosis.

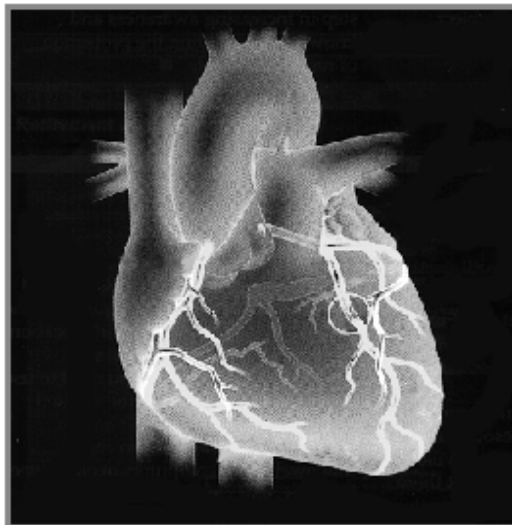
Other recurring problems in SPECT myocardial perfusion studies, both with rest and with stress, are the decrease in inferior left ventricular (LV) wall count density due to the ramp filter ("the negative lobe artifact") or, conversely, the scatter of abdominal activity into the inferior wall of the heart.

With PET, which can unambiguously correct for attenuation, scatter, and other deficiencies of SPECT, absolute coronary perfusion can be measured and perhaps will prove to be clinically useful despite its higher cost. Rb-82 myocardial studies may yet pick up—something that is under review by many people.

In New Orleans, Bernard Bendriem (CTI PET Systems) described an interesting approach for a combined PET/SPECT instrument that consisted of a double pixellated system: an LSO detector (very good PET scintillator) combined with a NaI detector. This system may permit the implementation of simultaneous emission/transmission acquisitions. The PET portion of this system is currently more developed than the SPECT portion. *Market*: PET/SPECT for the price of one.

Edward DiBella described a joint venture collaboration between the University of Utah and Marconi. They are studying a

simultaneous PET/SPECT system using a coincidence camera in fully 3D mode with a LEHR collimator. This type of imaging would permit simultaneous imaging with FDG and with a Tc-99m myocardial perfusion agent. As you would expect, there are technical problems with such a system. The scatter fraction for FDG is large and must be corrected for. Another challenge for this system is the F-18 downscatter into the Tc-99m window. *Market*: Viability/perfusion studies in one sitting.



Robert Hendel (Rush-Presbyterian-St. Luke's Medical Center) discussed the accumulated clinical experience with the Picker and the ADAC cardiac SPECT attenuation correction algorithms. Reviews of the performance of these systems were mixed and at the present time very few hospitals routinely use these attenuation correction systems.

Steve Glick (University of Massachusetts) reviewed approaches to cardiac attenuation correction. An ideal method uses the MLEM iterative reconstruction algorithm with methods such as OSEM and simultaneous transmission/emission imaging. The system also will require compensations for scatter and for variable collimator-dependent spatial resolution. Other compensations needed are partial-volume averaging and cardiac/respiratory gating.

There was agreement that NEMA standards need to be developed to validate use of commercial systems for SPECT cardiac attenuation correction. Please consult for pertinent references of SPECT attenuation and scatter compensations: *Seminars in Nuclear Medicine* 29:204, 1999.

Kenneth J. Nichols (Columbia University) discussed cardiac gated SPECT that acquires ECG-synchronized data and measures left ventricular wall thickening and ejection fraction (EF). This procedure can be reimbursed separate from a cardiac myocardial perfusion study. Such studies demand exquisite SPECT quality control (camera/motion/data processing/software). Computation of the ejection fraction may be count-dependent and affected by post-processing filtration. Abdominal activity also may critically influence the ejection fraction calculation. APCs, PVCs, transient increases of heart rate, and atrial fibrillation all degrade the accuracy of the ejection fraction calculation. Users need to be aware of these pitfalls.

Although many gated EF studies are processed automatically, expert individuals should often check the endocardial and endocardial LV borders and derive their own ejection fractions. Observers must agree that the outlines of the LV cavity and the aortic valve plane are realistic boundaries when compared with the visual perception of these structures. A major problem with border recognition exists with severe LV wall hypoperfusion, a situation where accurate measurement of the EF is most desirable but may be most difficult. Some programs have been written to correct for this deficiency. Probably the best way to validate the gated perfusion cardiac SPECT EF in your hospital is to closely and independently obtain a gated EF and a cardiac MUGA EF in a series of patients.

Three commercial programs—SPECT EF, QGS, and Emory Cardiac Toolbox—are available for the calculation of the cardiac gated SPECT ejection fraction and the display of the wall thickening. Consult for more references and a thorough discussion of cardiac gated SPECT EF: *Seminars in Nuclear Medicine* 29:271, 1999, and *Journal of Nuclear Medicine* 40:650, 1999.

Editors' Desk



Michael K. O'Connor, Ph.D.

Some of you may be aware of recent developments within the Society of Nuclear Medicine that impact both the Central Chapter and its educational efforts. The event that generated the most interest was the press release by the SNM of an alliance with GE Medical Systems. This alliance was to promote the development of web-based teaching that would permit both physicians and technologists to obtain CME credits on the Internet. Concurrent with this announcement (but not necessarily related to it) was the decision by GE to withdraw support from all SNM chapter meetings. While most would agree that web-based teaching has a definite role in the future of nuclear medicine, it should not be the only way of staying informed and up-to-date on new developments and refinements in our clinical practice. In addition to lectures, the one-on-one interaction that occurs at meetings (particularly small meetings) plays a valuable role in improving

our techniques and in learning many of the finer points and skills that distinguish excellence from mediocrity. If more vendors move in the direction of web-based teaching rather than support for meetings, many chapters would be hard pressed to host meetings of the quality members have come to expect. So please give this issue some thought—how do you want to see our medical specialty grow and improve? If you don't care enough to get involved and concerned about what happens, then don't expect great things to happen! Get involved, even if it is only to tell us what we are doing wrong or what it is that matters most to you.

This year we are planning to have three issues of the newsletter. This is primarily because of the absence of a meeting this fall. The next issue will contain reviews and impressions of the recent annual meeting in St. Louis. In this issue we have concentrated on reviews from the midwinter meeting of the Society of Nuclear Medicine, which was held in New Orleans last February. Drs. Ficaro and Bianco have contributed reviews on various aspects of this meeting, which had as its focus nuclear cardiology. This meeting provided an excellent overview of the state of the art in quantitative nuclear cardiology. Most interesting was the fact that while many laboratories currently possess the capability for attenuation correction, only 5–10% of laboratories currently use this correction method in their clinical practice, a clear indication that considerably more work needs to be done in this area to bring this technique into routine clinical use.

Editors: Michael O'Connor (mkoconnor@mayo.edu) and Susan Weiss (sweiss@nwu.edu)



Sue Weiss, CNMT, FSNMMS

Corporate Corner

Who to contact? The following exhibitors were on hand to discuss their products during the recent Central Chapter meeting in Dearborn, MI.

ADAC Laboratories

John Buth, 800-729-2322 VM4574

Berlex

Gary Compton, 888-237-5394 VM7452

Bracco Diagnostics

Kevin Brooks, 609-514-2304

Capintec

Vimal Patel, 800-631-3826

Coulter/Smith Kline Beecham Oncology

Cathi Bowman, 650-553-2058

Digirad

George Stratton, 800-786-4549 x31

DuPont Life Sciences Enterprise

Bill Lepeak, 800-599-5744 x7893

Eastern Isotopes

Mark Wilson, 877-334-3673

Knoll Pharmaceutical Co.

Ronald Kozlowski, 800-416-2228 x1322

Mallinkrodt Inc.

Dan Bradbury, 800-634-1515 x34711

Marconi Medical Systems

Robert Ward, 800-866-8507 ID#7233

Medi-Nuclear Corporation

Brian Rand, 800-423-4226

MIE—Medical Imaging Electronics

Franz Formella, 847-981-6100

Mobile PET Systems, Inc.

Michael Spohn, 630-942-8264

Nuclear Fields Collimators

Mark Keijzers, 847-299-8450

Numed, Inc.

Jack Allen, 940-365-9777

Nycomed Amersham

Craig Herzberger, 630-637-1284

P.E.T.Net Pharmaceutical Services, LLC

Karen Stevens, 800-738-0488 x3557

Radiology Corporation of America

Don Meder, 877-726-2979

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Karl Berland, 800-437-2708 x5187

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Jim McClear, 800-664-0848 x2032

Syncor International

Britt Sautter, 800-678-6779 x2901

Technology Imaging Services

Kymberlie Stutz, 330-758-7800

Toshiba America Medical Systems

Rick Rippin, 800-669-9826

Technologist Section President's Report (cont.)

¶1 The title of the program is *Nuclear Medicine Now! It Isn't Planar Anymore!* The subject content is based on imaging technology and there will be 5 sites around the Chapter hosting the program. Watch your mailbox or check the website for up-to-date information.

During the business meetings, we had some great discussion on how to encourage new members to join and how to better meet the needs of our current members. A menu-driven membership program is in its second round of testing in the Southern California Chapter and we will be updated as to its success at the national meeting in June. Currently, new members can cite a sponsor that encouraged them to join and the sponsor will receive a 10% discount on membership renewal. Benefits to members include CE tracking and discounts for SNM-sponsored programs. The JNM and JNMT provide information on new technology in nuclear medicine as well as items useful in your daily practice. The opportunities to meet other nuclear professionals, to share knowledge and information, are available when you attend educational programs or visit the websites of the chapter and SNM. By being a member you are instrumental in shaping the course of your profession in the years to come.

If you are interested in becoming more involved in the workings of the Tech. Section, or have ideas and suggestions on how we can improve, please contact me or the Central Chapter office for more information. In closing, I would ask that once you have read the newsletter, you pass it around for your colleagues to read as well.

Future Meeting—2002

Innovations in Nuclear Medicine Imaging, Therapy, and Instrumentation

We have already made significant plans for our spring meeting in year 2002 and more details will be given on the website and in the next newsletter.

Proposed Location: Northwestern University, Chicago, IL

Dates: Spring 2002

Program Chairs:

Mark Groch, Ph.D.

(312) 926-4506

DOCNUC@aol.com

Monica Geyer, CNMT

(312) 926-0422

mgeyer@nmh.org

Topics:

- Oncology—Diagnostic and Therapeutic
- Positron Emission Tomography
- Future Advances in Nuclear Medicine

President's Report (cont.)

¶1 During my term in office we will revisit the relationship between the SNM and the chapters. This project was launched by the SNM. The chapter obviously participates in the nomination of officers for the SNM, sends participants to meetings of the House of Delegates of the SNM, and is a representative body for SNM members who happen to reside in the Central Chapter. The SNM implements the collection of dues and maintenance of membership data for the chapter.

It is interesting that Internet teaching was not popular until about 1996. Now it is like a public utility: a must. I cannot think of any other tool at our disposal that is as powerful for structured teaching as the Net is. Thus, during my term, a subcommittee will quickly examine our website and look ahead with realistic proposals. Obviously, the website can be employed to accomplish a variety of jobs, but the critical ones are education, education, and education. The website also will link the membership more closely and easily.

Finally, let's all prepare for the 2001 meeting in Itasca, IL and let's contribute to make it an educational success.

CORPORATE SPONSORS 2000 Spring Meeting, Dearborn, MI

The following companies supported this meeting with restricted and unrestricted grants:

- ADAC Laboratories
 - Bicon
 - Cytogen Corporation
 - DuPont Pharmaceuticals
 - Eastern Isotopes, Inc.
 - Mallinckrodt, Inc.
 - Marconi Medical Systems
 - MDS Nordion
 - Nuclear Fields USA Corporation
 - Numed, Inc.
-
-

Central Chapter Executive Director: Renae Henkin

A Multitalented Addition to the Chapter

Newsletter Editor: Sue Weiss

Renae Henkin, Central Chapter Executive Director, is a person that everyone in the chapter should get to know. She is the chapter's biggest asset and a wonderful resource for chapter members. If a project needs doing, Renae is there to get it done. Her knowledge of the Society and association management is remarkable. She has experience in publishing and educational material production and has a great resource of her own, her husband, Dr. Robert Henkin. Dr. Henkin is acting Chairman of Radiology at Loyola University Medical Center in Illinois and is a Past President of the Central Chapter. Renae and Bob produce educational and marketing material for the nuclear medicine community at their company, UNM, Ltd.

Renae received her BS degree in Radio/TV/ Film from Indiana State University in 1973. She has spent most of her professional career in the areas of publishing, marketing, and print production. She joined Downe Publishing in 1973, where she sold direct response advertising for its special interest, quarterly, and monthly publications. In that position, Renae began learning the fundamentals of print production, and in 1983 she joined an offset print company as production manager. There, she was responsible for the trafficking and printing of single- and multicolor material.

In 1984, she was given the opportunity to use her sales talents and production skills when she became advertising manager for the journals of the Society of Nuclear Medicine and the Technologist Section. In 1987, Mrs. Henkin joined ProClinica, a medical marketing company, as an account executive. At ProClinica, she worked on the introduction of SPECTamine™, the first of the new brain imaging agents.

In 1989, Renae and Bob began their work as a team, establishing UNM, Ltd., after their marriage. In the early 1990s she became production manager for *Nuclear Medicine Update*, a publication of the Central Chapter. *Nuclear Medicine Update* is now in its 11th year. They work together to provide all management services for the chapter since Renae's appointment as Executive Director in 1999.

One of her biggest assets is Renae's knowledge of Nuclear Medicine. She is member of the American College

of Nuclear Physicians, the Society of Nuclear Medicine, the Society of Nuclear Medicine Technologist Section, and the Nuclear Medicine Industry Association of North America (NMIA-NA), a new trade organization for nuclear medicine. Renae has served as a chair of the Corporate Committee of the American College of Nuclear Physicians. She has also been appointed to several committees for both the SNM and the ACNP. She is currently an alternate board member for NMIA-NA.

Renae's vast experience in the nuclear medicine industry has served to educate her about what it is that we do and what our issues are, whether they are socio-economic, scientific, or organizational. She knows where to go for needed information, she can get something designed, printed and mailed quickly, and she understands the content. These are unique assets in someone who is not educated in the field of nuclear medicine.

Renae's knowledge of nuclear medicine serves the chapter well in all that she does for us. Her biggest assets however, are her winning smile and her willingness to work hard for the chapter. You will always find her in the committee meeting rooms and then at the registration desk, helping everyone to get registered quickly. She has solutions to most problems and quickly resolves issues with little excitement. Renae has made innovations since joining the chapter, such as a web page, electronic versions of the newsletter, and enhanced communication to the leadership. There is seldom a day that goes by without an e-mail from Renae regarding Central Chapter business. She has changed the way we do business for the betterment of the chapter.

If you have issues or problems regarding chapter meetings or other chapter business, please get to know Renae. She will make sure that the leadership hears your issues and will work to resolve them for everyone's benefit. You can reach Renae via e-mail at ccsnm@mindspring.com or telephone 630-686-6187 or by fax at 630-971-8103. Also, next time you attend a chapter meeting, look for Renae at the registration desk and say hello to her. Be sure to check out her smile and her New York accent!!!

A Note from the Executive Director

Recently, our middle son graduated from Arizona State with a degree in Exercise Science. Shortly after graduation, he was off to Colorado Springs to intern with a well-know professional in his field. At the completion of this week-long intensive training session, Josh was told that he was one of the most apt students that the instructor had and he encouraged Josh to become an independent. Upon returning home Josh, delved immediately into the mechanics of self-employment. Like health-care workers, those who work in atheletic conditioning and rehabilitation need liabiabilty insurance. What did I encourage my son to do; join his certifying Society because these organizations offer an array of benefits for its members. To make a long story short, if you are not a member of the Society of Nuclear Medicine or the Society of Nuclear Medicine Technology, perhaps now is the time to find out what the Society can offer you as a professional. If you are a member, encourage your colleagues to join!

Spring Meeting—Dearborn, MI, April 2000



Members and exhibitors socialize during the coffee break.



The incoming president (Dr. Bianco) thanks the outgoing president (Dr. Blend) for all his work over the previous year.



The outgoing president of the Central Chapter, Dr. Blend, thanks Jeanne Mocieri and Dr. Karvelis for the considerable work they put in to organizing the Spring Meeting.



Ridgely Conant (outgoing president) and Jennifer Bryniarski (incoming president) of the Technologist Section share their views of the future of the Central Chapter.

Central Chapter Website

www.ccsnm.org

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