

A Glimpse into the Past: 1970–2020

Kathy Thomas, CNMT, PET, FSNMMI-TS

July 7, 2020, will mark the 50th anniversary of the Technologist Section (TS). To mark this historic event, it's only appropriate that we take a walk down memory lane and revisit the work done by individuals, some long since forgotten, who blazed the pathway that led to the formation of the Technologist Section. Then, building on that historical summary, let's explore how the leaders who followed have continued to build on that success story to enhance the Technologist Section into what it is today.

For the 25th anniversary in 1995, Don Bernier updated an article, written for the 15th anniversary of the Technologist Section, titled "A Glimpse into the Past." As I read through that historical summary about those early days and the work done by a few dedicated technologists and physicians, I am amazed to realize how far we've come and the success that has been achieved. The following information is taken from that manuscript (1).

For those unfamiliar with that initial journey, long before the TS existed, the Society of Nuclear Medicine's (SNM) membership was simply a hodgepodge of physicians, scientists, chemists, engineers, technologists, and others with different backgrounds but an interest in nuclear medicine. Sections and Councils, which today participate in the exchange of scientific data, research, or ideas, were yet to be conceived. Nothing existed to support the professional goals of the nuclear medicine technologist. Because the needs of nuclear medicine technologists (NMTs) were not being met, in 1965 a group of 12 NMTs created an organization called the Society of Nuclear Medical Technologists (SNMT) in Chicago, Illinois. That organization flourished, and membership skyrocketed to 382 members. The SNMT presented successful scientific meetings in 1965–1967. Unfortunately, a merger of the Chicago-based SNMT with the SNM was never realized.

In 1966, in another part of the country, a second group of technologists in Houston, Texas, organized a technologist association under the presidency of Gary Wood. Rather than working independently, this group saw the benefits of associating themselves with the SNM. They asked Dr. Haynie of the Southwest Chapter for assistance in creating a permanent relationship with that chapter. Dr. Haynie and other members of the Southwest Chapter became instrumental in amending the Chapter's bylaws to include the technologist association.

In 1966, the SNM Board of Trustees would consider then act upon the creation of an organizational structure within

the SNM that would allow the participation of technologist members. The original structure designated for technologists was called the Committee on Technical Affiliates with three subcommittees: The Subcommittee on Nuclear Medicine Technologist Training to the American Medical Association (AMA) Council on Medical Education (now known as the JRCNMT); the Subcommittee on Continuing Education; and the Subcommittee on Technologist Affairs.

By 1968, these subcommittees had made important strides within the organization. The Subcommittee on Nuclear Medicine Technologist Training to the AMA authored the first "Essentials" under the guidance of Dr. Ervin Kaplan. The Subcommittee on Continuing Education, chaired by Dr. Donald Korst, successfully organized a technologist program for the 1968 Annual meeting in Saint Louis, Missouri. The Subcommittee on Technologist Affairs (now called the Committee on Technologists) met for the first time with chapter representatives from 13 chapters. During that meeting, the Committee on Technical Affiliates made several requests to the SNM:

- Continuation of the Committee on Technologists at the national level with technologist representation from each chapter and the Board of Trustees to encourage formation of local groups
- Expansion of the technologist program at the national meeting
- Standing committee status for the Committee on Technologists
- A special section in the *Journal of Nuclear Medicine* for publication of technologists' scientific papers

"The battle, led by the Technologist Section, for Nuclear Medicine Technology recognition as a professional entity experienced a major victory with the founding of the NMTCB in 1977 for which I had the honor and privilege of serving as the first Chairman."



Mark Muilenberg, FSNMMI-TS
SNMMI-TS President,
1976–1977

- Chapter representative to the committee be made a voting member of his chapter's executive committee.

The Committee on Technologists was a special committee, subject to appointment. In 1968, the incoming president, Craig Harris, reorganized the Committee on Technologists and combined the functions of the 3 subcommittees into one Special Committee on Technologists with Gary Wood as Chairman, Barbara Jump as Secretary, and Dr. Haynie as advisor.

The following year saw chapter representatives successfully working within their chapters to organize. Based on that success, on June 4, 1969, Dr. Haynie wrote to Dr. George Taplin, *"The time is approaching and may have arrived when it is desirable to set up a 'Technologist Section' with its own officers which would hold meetings coinciding with those of the Society and its chapters, and be administered through our New York Office. In my opinion, this would do much to clear the air and provide for rapid healthy growth in this segment of our membership."* This was the first time that the term "Technologist Section" was used.

On June 23, 1969, outgoing President Craig Harris stated in his report to the Board of Trustees, *"The experience of the past year, dealing with concerns of nuclear medicine technologists in several frames of reference, causes me to be increasingly persuaded that the interests of the nuclear medicine technologist and their relationship to the field of nuclear medicine would be served by having their own organization. I propose that the organizational efforts at present embodied in sectional groups and in chapter technologist organizations, be further extended to organizational efforts at the national level."*

The following year Gary Wood and Dr. Haynie worked tirelessly to form the Technologist Section. They prepared a Constitution and Bylaws for the Section and presented it to the Board of Trustees at the winter meeting in January 1970. Following that meeting, suggestions and comments received from the Board were incorporated and the documents were resubmitted. On July 7, 1970, the Trustees approved the revised bylaws and the Technologist Section was born.

The original leadership of the Section was appointed by Dr. Henry Wagner and included James F. Cooper, Chairman; Donald R. Bernier, Chair-Elect and Membership Chair; Barbara J. Jump, Secretary-Historian; Catherine A. Lambert, Treasurer; Vincent V. Cherico, Nominating Committee Chair; and Huey D. Barnett, Scientific and Teaching Sessions Committee Chair.

The first step was complete. The Technologist Section was now an official body within the SNM. It had appointed leadership and a "generous" budget of \$1,000—but no identifiable members!

Jim Cooper worked tirelessly in that first year to create and establish a successful pathway for the Section. He enlisted help from the chapters; restructured the National Council; prepared press releases; and corresponded with anyone with a question, comment, or complaint about nuclear medicine technology. His efforts paid off. The first

business meeting of the Section took place at the Annual Meeting in Los Angeles in June 1971. Applications from 737 prospective members were received and approved as charter members. At that same meeting, 23 scientific papers were presented by technologists, and 11 of 16 chapters sent National Council members to the meeting. Elections were held for the first time, and the following leadership was elected: Floyd Potes, Chair-Elect; Catherine Lambert, Secretary-Historian, and James Sims, Treasurer. Dr. Haynie and Gary Wood were later named Distinguished Honorees for their efforts on behalf of the Section.

Following the Annual Meeting in Los Angeles, the TS added the Continuing Education committee, charged with improving teaching sessions at the next Annual Meeting and identifying the educational needs of technologists.

Two important events occurred for the TS in 1973. The first, and perhaps the most significant, was the publication of the first *Journal of Nuclear Medicine Technology (JNMT)*. The second important event was the first meeting of the TS separate from the Society's summer meeting. This first meeting, held in St. Louis, Missouri, was reported to be "highly successful" and would be held for several more years before being combined with the scientific program of the SNM's Annual Meeting in June.

"My year as president of the SNM-TS (1980–1981) was a year of challenge and great memories. The Technologists Section was in the formative years. We were coming of age to establish our identity and break with the Radiology Tech organization (ARRT) that wanted our members. We outnumbered the SNM physicians as members in the Society of Nuclear Medicine (SNM), but had little decision power in matters. As history proves, we were successful in developing the SNM-Tech Section as a separate entity with its own charter.

On the lighter side, Virginia Pappas, then the exec of the Tech Section, called me on a Friday afternoon to inform me that a mail bag of outgoing voting ballots was lost, a potential disaster for all of us! Needless to say we were both at a level 10 on the angst scale. Somehow, some way the NY office came through; in a few days they found the stolen bag. It was a year of new friends, lots of work and loads of fun. I am grateful and honored to have been associated with this group of professional and dedicated people."



Michael L. Cianci, CNMT,
FSNMMI-TS
SNMMI-TS President,
1980–1981

Additional accomplishments achieved by the TS through its 25th Anniversary included:

- The creation of Verification of Involvement in Continuing Education (VOICE)
- The creation of the Nuclear Medicine Technology Certification Board (NMTCB)
- Increased advocacy involvement
- Improved lines of communication between other organizations involved in nuclear medicine.

The “A Glimpse into the Past” is fascinating reading. I hope everyone will take the time to read in its entirety (https://s3.amazonaws.com/rdcms-snmmti/files/production/public/docs/tech_section/GlimpseIntoThePast.pdf).

As fascinating as our first 25 years are, the road traveled by the TS for the next 25 years demonstrates how that original torch of innovation to create an organization to support the professional growth of nuclear medicine technologist through education, membership, and advocacy has been carried on and continues today.

EDUCATION CRISIS

Coinciding with the 25th Anniversary, the American Registry of Radiological Technologists (ARRT) announced a new requirement for recertification that would have a major impact on the technologist community. Recertification now required the acquisition of a specified number of approved continuing education (CE) credits within a technologist’s CE biennium (2-year period). Accepted credits were limited to those obtained from Recognized Continuing Education Evaluation Mechanism (RCEEM) organizations. In later years, the NMTCB and state regulatory agencies would follow with the requirement for CE for recertification.

Step One

The TS needed to acquire RCEEM status including the development of the VOICE guidelines to define approved educational programs. Guidelines are continuously updated to retain RCEEM status. In later years, the TS acquired RCEEM+ status to review and approve advanced educational programs at the CME level.

“During my tenure V.O.I.C.E. credits were able to be obtained through Continuing Education Articles in the Journal of Nuclear Medicine Technology (JNMT).”



John J. Reilly, CNMT,
FSNMMI-TS
SNMMI-TS President,
1981–1982

Step Two

The next step was to increase CE offerings. Education was no longer a choice, and the number of available programs from RCEEM organizations was limited. Through the creative minds and the tireless efforts of the nuclear medicine community, available CE programs have grown dramatically. Live programs, a popular choice for most NMTs, presented at the national, chapter, and local levels, increased dramatically. Road shows have been developed and travel around the country or within chapters to increase access. Online educational programs have been developed including journal-based courses, online lectures in the form of webinars, comprehensive review courses, and books with accompanying CE credits. The SNM began tracking CE credits in 2002 and in 2008 began sharing CE credit reports with credentialing organizations (NMTCB and ARRT) as an additional member benefit.

COLLABORATIVE PARTNERSHIPS

Successful collaborative partnerships with professional societies and health-care organizations including the Summit on Manpower, the Alliance, and the Health Professions Network (HPN) have supported professional growth within allied health for many years.

The Summit, a working group of 17 professional organizations including the TS, addressed identified issues. Issues included the workforce shortage in the late 1900s and how to improve worker retention.

The Alliance, a group of 26 radiologic science organizations, worked tirelessly for many years to pass the Consumer Assurance of Radiologic Excellence (CARE) Act. The CARE Act was an attempt to set a minimum education and certification standard at the federal level for all medical imaging and radiation therapy professionals.

The HPN, a collaborative group of professional associations, educators, accreditors, and credentialing and licensing agencies, was formed to represent the needs of allied health professionals. The SNMMI-TS was a founding member of this organization. HPN continues to work to raise the public’s awareness of allied health professions, to act as an interdisciplinary problem-solving body, and to prepare allied health professionals for the future practice of health care.

NEW TECHNOLOGIES

New technologies including SPECT/CT, PET/CT, and PET/MR have expanded our horizons and challenged our profession. Hybrid technologies cross professional boundaries. In many states, an NMT cannot perform a CT exam without a credential in radiologic technology. The same is true for a radiologic technologist (RT) performing a PET exam. Two technologists performing a single hybrid study is not efficient or cost effective. Over several years working closely with the ARRT and NMTCB, an educational and clinical experience pathway was developed and approved. It allows NMTs to sit for the ARRT’s CT exam and RTs to sit for the NMTCB’s PET exam. Additionally, a pathway for the NMT to sit for ARRT’s

MR exam was approved. Recently, the NMTCB began offering a CT exam providing the NMT with an alternate choice for CT certification. Although barriers from the national credentialing organizations have been eliminated, some state regulatory agencies continue to limit performance of exams on hybrid technology. Work continues to address this challenge.

PROFESSIONAL GROWTH IN CAREER ADVANCEMENT

Several projects to enhance professional growth and career pathways have been undertaken by the TS in the last

25 years. These projects include supporting post primary certifying exams; the development of a Nuclear Medicine Advanced Associate (NMAA); the creation of a master's level NMT training program; and the Imaging Scientist.

Post Primary Certifying Exams

Post primary exams include certification in CT, nuclear cardiology technology (NCT), PET, and radiation safety (RS). Review books and online educational programs have been developed to support technologist education in these areas.

TS President's Name	Year	Chapter
James F. Cooper, PhD, FSNMMI-TS	1970–1971	Southeastern Chapter
Donald R. Bernier, CNMT, FSNMMI-TS	1971–1972	Missouri Valley Chapter
Floyd Potes, FSNMMI-TS*	1972–1973	Pacific Southwest Chapter
Leonard Lopez, FSNMMI-TS	1973–1974	Missouri Valley Chapter
Vincent V. Cherico, CNMT, FSNMMI-TS	1974–1975	New England Chapter
Glenn Isserstedt, FSNMMI-TS*	1975–1976	Central Chapter
Mark Muilenberg, FSNMMI-TS	1976–1977	Missouri Valley Chapter
James K. Langan, CNMT, FSNMMI-TS	1977–1978	Mid-Eastern Chapter
Susan C. Weiss, CNMT, FSNMMI-TS*	1978–1979	Central Chapter
George W. Alexander, Jr., CNMT, FSNMMI-TS	1979–1980	Southeastern Chapter
Michael L. Cianci, CNMT, FSNMMI-TS	1980–1981	Northern California Chapter
John J. Reilley, CNMT, FSNMMI-TS	1981–1982	Greater New York Chapter
Dorothy D. Price, CNMT, FSNMMI-TS	1982–1983	Northern California Chapter
Shelley D. Hartnett, BA, CNMT, FSNMMI-TS	1983–1984	Pacific Northwest Chapter
Maria V. Nagel, PhD, FSNMMI-TS	1984–1985	Missouri Valley Chapter
James J. Wirrell, CNMT, FSNMMI-TS	1985–1986	Central Chapter
Wayne J. Wcislo, CNMT, FSNMMI-TS	1986–1987	Central Chapter
Marcia R. Boyd, CNMT, FSNMMI-TS	1987–1988	Southeastern Chapter
Paul Cole, FSNMMI-TS*	1988–1989	Central Chapter
Author (Art) J. Hall, CNMT, FSNMMI-TS	1988–1990	Southwest Chapter
Bradley K. Pounds, CNMT, FSNMMI-TS	1990–1991	Central Chapter
Mickey Williams, CNMT, FSNMMI-TS*	1991–1992	Pacific Southwest Chapter
Paul C. Hanson, CNMT, FSNMMI-TS	1992–1993	Southwest Chapter
Theresa M. Boyce, CNMT, FSNMMI-TS	1993–1994	Missouri Valley Chapter
Becky M. Cacciatore, CNMT, FSNMMI-TS	1994–1995	Southeastern Chapter
Lynnette A. Fulk, CNMT, FSNMMI-TS	1995–1996	Central Chapter
Martha W. Pickett, MHSA, CNMT, FSNMMI-TS	1996–1997	Southwest Chapter
Kathy S. Thomas, MHA, CNMT, PET, FSNMMI-TS	1997–1998	Pacific Southwest Chapter
Lynne T. Roy, MBA, CNMT, FSNMMI-TS	1998–1999	Pacific Southwest Chapter
Cynthia S. Wharton, CNMT, FSNMMI-TS	1999–2000	Southeastern Chapter
Kristen M. Waterstram-Rich, CNMT, FSNMMI-TS	2000–2001	Eastern Great Lakes Chapter
Mickey T. Clarke, CNMT, FSNMMI-TS	2001–2002	Missouri Valley Chapter
Frances K. Keech, MBA, RT(N), FSNMMI-TS	2002–2003	New England Chapter
Lyn M. Mehlberg, BS, CNMT, FSNMMI-TS	2003–2004	Central Chapter
Nanci A. Burchell, MBA, CNMT, FSNMMI-TS	2004–2005	Missouri Valley Chapter
Valerie R. Cronin, CNMT, FSNMMI-TS	2005–2006	Eastern Great Lakes Chapter
D. Scott Holbrook, BS, CNMT, FSNMMI-TS	2006–2007	Southeastern Chapter
C. David Gilmore, MS, CNMT, RT(N), FSNMMI-TS	2007–2008	New England Chapter
Mark Wallenmeyer, MBA, CNMT, RT(N), FSNMMI-TS	2008–2009	Missouri Valley Chapter
Cybil J. Nielsen, MBA, CNMT, FSNMMI-TS	2009–2010	Southeastern Chapter
Jo Kathryn E. Hunt, MS, CNMT, FSNMMI-TS	2010–2011	Southeastern Chapter
Ann Maire Alessi, BS, CNMT, NCT, RT(N)	2011–2012	Greater New York Chapter
Brenda King, CNMT, FSNMMI-TS	2012–2013	Pacific Southwest Chapter
D. Scott Holbrook, BS, CNMT, FSNMMI-TS	2013–2014	Southeastern Chapter
April Mann, MBA, CNMT, NT, RT(N), FSNMMI-TS	2014–2015	New England Chapter
Aaron Scott, CNMT, NMAA, FSNMMI-TS	2015–2016	Southeastern Chapter
Sara G. Johnson, MBA, CNMT, NCT, FSNMMI-TS	2016–2017	Pacific Southwest Chapter
Kathleen M. Krisak, BS, CNMT, FSNMMI-TS	2017–2018	New England Chapter
Norman E. Bolus, MSPH, MPH, CNMT, FSNMMI-TS	2018–2019	Southeastern Chapter
Mark H. Crosthwaite, M.Ed., CNMT, PET, NMTCB(RS), FSNMMI-TS	2019–2020	Mid-Eastern Chapter
Tina M. Buehner, MS, CNMT, NMTCB(CT)(RS), RT(N)(CT), FSNMMI-TS	2020–2021	Central Chapter

NMAA

The NMAA was created to be a physician extender working under the supervision of a licensed physician who is an Authorized User of radioactive materials. This concept was developed by Martha Pickett and a select group of physicians, scientists, and technologists who recognized the value of enhancing the scope of practice of a nuclear medicine technologist to serve in the capacity of a physician assistant in nuclear medicine. The success of the NMAA program has been limited by state regulations that restrict graduates from performing at the advanced practice level. The NMTCB created and continues to offer the NMAA certification exam for graduating students.

MS NMT Program

The master's level NMT program has been designed to address the need to expand technical knowledge in CT, MRI, basic science, and administrative issues not covered in a typical NMT program.

Imaging Scientist

A new pathway, still in its infancy, is the concept of the Imaging Scientist. Nuclear Medicine and Molecular Imaging has come a long way in the last 50 years. Although NMTs, by definition, perform molecular imaging, our educational model may need an update with an additional focus on hybrid imaging of all kinds. The Imaging Scientist Taskforce, now rebranded as the Advanced Imaging Education Task Force, has been charged with exploring changes to existing educational curriculums, while ensuring that practicing technologists get the CE needed to keep pace with the unprecedented changes in technology. The working group consists of the TS, ASRT, SMRT, AHRA, ARRT, ARRT, NMTCB and 6 program directors, 3 from Nuclear Medicine Programs, and 3 from RT programs. The outcome of this Task Force is yet to be determined; however, may it offer the possibility of another exciting professional career path in the future.

ADVOCACY

For many years, advocacy has played a critical role in the viability of the TS and the SNMMI.

"The Society of Nuclear Medicine accepted the proposed financial arrangements with the Technologist Section to permit the Section to function independently with its own budget."



Dorothy D. Price, CNMT,
FSNMMI-TS
SNMMI-TS President,
1982-1983

State Issues

Licensure, including obtaining and retaining NMT licensing, continues to be addressed. Today, 38 states license NMTs. Through state advocacy, 2 states were prevented from deregulating NMTs, and work persists in states that limit an NMT's ability to perform CT scans.

Scope of Practice

The NMT's scope of practice is an ever-green document that requires continuous updating to incorporate new skills, technology, and education.

Regulatory Education

Ensuring the NMT's scope of practice requires constant regulatory education. Recent successes have included:

- Changes in both the Hospital Outpatient Prospective Payment System (HOPPS) and The Joint Commission (TJC) that removed the need for personal supervision when preparing radiopharmaceuticals
- Conference of Radiation Control Program Directors' recognition that NMTs with training can perform diagnostic CT
- Input to the U.S. Pharmacopoeia in developing the USP 825 standards
- Providing cost and billing information to Centers for Medicare & Medicaid Services (CMS) to maintain adequate payment for nuclear medicine scans
- Successfully obtaining sponsorship for H.R. 3772, a House of Representatives bill that will allow hospitals to be paid for radiopharmaceuticals that have gone off "pass through" status

NAME CHANGE FOR SNM

In 2012, the Society of Nuclear Medicine became the Society of Nuclear Medicine and Molecular Imaging. As noted by Ann Marie Alessi in her *JNMT* President's message, "Molecular imaging has its roots in nuclear medicine and shares many of the same fundamental principles. Embracing emerging functional imaging technologies beyond those that utilize radioactivity with the new name reflects the natural evolution of the SNM's identity and corresponds with the advancement of our profession. The new name retains SNM's identity while opening up new possibilities and members including scientists, technologists, clinicians and laboratory professionals whose primary focus is nonnuclear molecular imaging. It recognizes the growing diversity in imaging, nuclear and nonnuclear molecular and nonmolecular. It also recognizes the therapeutic, medicinal aspects of the specialty by retaining the words *nuclear medicine*" (2).

Additional important programs developed by the TS in the last 25 years will be discussed in detail in this supplement, including the creation of "Fellow" status for TS leaders, TS publications, NMT education, a historical perspective of the NMTCB, the success of TS grants and awards available to technologist members, the successful collaboration with our

international partners, and finally, a discussion on the vision of the future for the TS.

For the last 50 years, volunteer technologists, working with and for each elected TS president, have carried the torch of success forward. Through their dedication, the TS has grown from a small group of enthusiastic technologists to the multinational organization we know today. It's important to note, however, that the success of every TS leader relies on a group of individuals who are the heart and soul of the organization yet remain invisible to the majority of the membership. This invisible group is the dedicated staff of the SNMMI. They work tirelessly to turn concepts into reality. They tolerate our driven, detail-oriented nature. They are the backbone of the organization that supports us through thick and thin. We have been fortunate to have had TS Administrators who have

our best interests at heart. From Virginia Pappas to Greg Robinson, Mike Nelson, and now the tireless dedication of our current TS Administrator, Nikki Wenzel-Lamb, the TS is and continues to be the success story envisioned by those pioneer technologists more than 50 years ago.

Technologists, working in collaboration with physicians, scientists, and staff will ensure the continued success of the organization. Happy 50th Anniversary!

REFERENCES

1. Bernier DR. A Glimpse into the Past. Amazon AWS website. https://s3.amazonaws.com/rdcms-snmml/files/production/public/docs/tech_section/GlimpseIntoThePast.pdf. Accessed April 8, 2020.
2. Alessi AM. Change is a-happening... and it's a good thing. *J Nucl Med Technol*. 2012;40:11A-12A.

“During my tenure in 1984, the Essentials and Guidelines for an accredited NMT Educational Program were approved by the National Council. A task force on Continued Competency was completed and published (JNMT). It was a rewarding time for me, and I remain grateful to the TS and Society for the support they provided.”



Shelley D. Hartnett, BA, CNMT,
FSNMMI-TS
SNMMI-TS President,
1983-1984

“To the best of my memory, the two things about my year (1985) as president were the final effort put forth by the membership to have a national nuclear week established by the United States Congress and the passing of criteria to establish the honor of becoming a fellow of the technologist section.”



James J. Wirrell, CNMT,
FSNMMI-TS
SNMMI-TS President,
1985-1986