

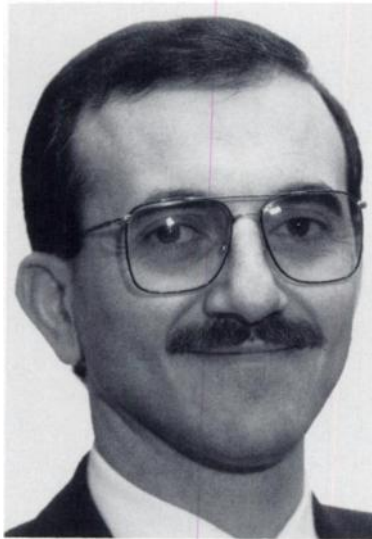
## SABAH S. TUMEH RECEIVES 8TH TETALMAN MEMORIAL AWARD

**S**abah S. Tume, MD, director of the radiology department's nuclear medicine division at Brigham and Women's Hospital in Boston, was honored last month with the Eighth Annual Tetalman Memorial Award presented by the Education and Research Foundation of the Society of Nuclear Medicine (SNM). The presentation was made at the SNM Annual Meeting in San Francisco in June.

Dr. Tume has studied chronic osteomyelitis, tricuspid regurgitation, clinical applications of single-photon emission computed tomography (SPECT) and, most recently, immunoscintigraphy as applied to ovarian carcinoma.

The award is given each year "to the single most outstanding young investigator in the field of nuclear medicine, who has the most impressive accomplishments, credentials, and promise for the future," according to Ralph J. Gorten, MD, president of the Foundation and nuclear medicine specialist at the Kelsey-Seybold Clinic in Houston. Dr. Tume was chosen by a committee of four senior-level researchers, who selected him from among eight "extremely impressive individuals, each with very outstanding credentials and notable accomplishments," Dr. Gorten said. The winner must be 36 years old or younger at the time of the award, which includes a plaque and a \$2,000 prize.

Born in Syria in 1952, Dr. Tume earned his BS degree in 1973 from the American University of Beirut, Lebanon, and his MD degree from the same university in 1977. After three years of general diagnostic radiology training there, he moved to the United



*Sabah S. Tume, MD*

States to finish his radiology training at Brigham and Women's Hospital, and to join the Joint Program in Nuclear Medicine at Harvard Medical School in Boston for two years of nuclear medicine training.

A diplomat of the American Board of Radiology in Diagnostic and Nuclear Radiology as well as the American Board of Nuclear Medicine, Dr. Tume has lectured before the New England Roentgen Ray Society and the New England Chapter of the SNM, among others. He also presented the paper, "State-of-the-Art Gallium-67 Scintigraphy in Lymphoma," before the 33rd Annual Meeting of the SNM in 1986.

Dr. Tume began his research in cardiovascular nuclear medicine in 1980, working with B. Leonard Holman, MD, chair of the radiology department of Brigham and Women's Hospital and professor of radiology at Harvard. He became interested in the assessment of tricuspid regurgita-

tion using gated blood pool imaging of the liver. By assessing the change in liver volume as a function of time during the cardiac cycle, he was able to clearly separate patients with tricuspid regurgitation from other subjects: patients with tricuspid regurgitation showed a significant increase in liver blood volume in the time after end-systole, while normal people did not. "This very clever application of RVG has proven highly useful and accurate in the assessment of that condition," Dr. Holman wrote in his supporting letter.

Dr. Tume was also the principal researcher in other applications of the blood pool study, including detection of bleeding from angiodysplasia and the diagnosis of cavernous hemangioma, Dr. Holman noted. "In a very carefully performed set of studies, Dr. Tume and his colleagues demonstrated the very high accuracy of SPECT imaging over a standard planar imaging for the detection of cavernous hemangioma of the liver. Sabah's contribution as research investigator was also important and central in the first successful demonstration of a technetium-99m labeled myocardial perfusion imaging agent."

In his supporting letter, S.J. Adelstein, MD, director of the Joint Program in Nuclear Medicine and Dean for Academic Programs at Harvard Medical School, pointed out the 1986 revision of a chapter in *Campbell's Urology*, "Radionuclide Applications in Genitourinary Disorders," which he said was "considerably strengthened" by Dr. Tume. Previously the chapter had been co-authored by Dr. Adelstein and S. Ted Treves, MD, chief of the division of nuclear

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medicine at Children's Hospital in Boston and radiology professor at Harvard.

"Since then, Dr. Tumeh has made two important contributions to the nuclear medicine literature," Dr. Adelstein wrote. The first was a definitive description of the use of gallium-67 and technetium-99m MDP in the diagnosis of active chronic osteomyelitis, in which he described the probability of active disease by studying the relative gallium/technetium uptake in 136 patients. "This paper placed on a sure footing what had been induced previously and considerably increased its clinical utility," Dr. Adelstein noted.

### 'Weighty Contribution'

More recently, Dr. Tumeh explored the use of SPECT, including the gallium-67 diagnosis of lymphoma. "In this elegant study, he has shown that SPECT increases both the sensitivity and specificity of the examination," Dr. Adelstein said. "It is a weighty contribution to the accumulating evidence that in certain circumstances, reconstruction tomography adds significantly to the accuracy of nuclear medical diagnosis."

The field of nuclear medicine attracted Dr. Tumeh while he was still in Lebanon. "I got interested in nuclear medicine when I was a resident in diagnostic radiology because it offers a unique way of evaluating early pathophysiology, in comparison with the morphologic changes we see in the radiological techniques of CT (computed tomography) and ultrasound." For example, he pointed out that gallium SPECT imaging provides an extremely useful method to monitor the response of Hodgkin's Disease patients to therapy, something CT cannot do.

He does not restrict himself to work in nuclear medicine, however. "I am

still interested in radiology," he said. "One of the areas I'm very much interested in is the correlation between morphological imaging techniques and physiological imaging techniques."

He is focusing his research efforts on two areas: bone marrow imaging, including the correlation between nuclear medicine techniques and magnetic resonance imaging (MRI), and tumor imaging with monoclonal antibodies. "My background in radiology is going to help me because I can compare the different modalities," he said.

### Tumor Uptake

Using several monoclonal antibodies against ovarian epithelial tumor, Dr. Tumeh is seeking to achieve a high tumor dose to help in the detection of the subtle foci of the tumors, as well as in their treatment. "We're still working on different antibodies, comparing them, and working on quantitating tumor uptake by SPECT," he said.

Dr. Tumeh has also been involved in promoting the practice and study of nuclear medicine. "One of the things we haven't done in the past is to go to medical schools and teach the students, get them interested at that stage," he said. "I've found it disappointing that we get interns here who have no idea what nuclear medicine does. This is one of the weak links in our chain." To help remedy the situation, he is involved in developing a program that introduces second-year medical students to the field by giving them an opportunity to work on research projects, and he has been gratified by the response. "I get inquiries from medical students who want to spend elective time here," he said, adding that some requests have come from outside of the Boston metropolitan area. "It's up to us—either we turn these people on, or we turn them off. If we don't have a structured program, our odds of

turning them off are high." He also advocates participation in Nuclear Medicine Week, the annual observance promoted by the Society of Nuclear Medicine and its Technologist Section.

### Skilled Teacher

In addition to admiring his meticulous and imaginative clinical studies, his senior colleagues made note of Dr. Tumeh's other skills. "His ability to integrate and communicate knowledge as a teacher is unsurpassed," wrote David E. Drum, MD, PhD, professor of radiology at Harvard and a radiologist at Brigham and Women's Hospital. "In particular I have seen his analytical approach to the synthesis of multidisciplinary imaging information result in several highly useful papers and in accolades from both undergraduate and postgraduate physicians."

"In terms of [study] design and analytic issues, I initially worked extensively with Sabah," wrote Barbara McNeil, MD, PhD, professor of radiology and clinical epidemiology at Harvard Medical School. "However, he quickly became quite advanced in these areas and now designs experiments and analyzes data with considerable skill." She added that Dr. Tumeh's reputation has led to clinical support from investigators in other departments. "If I were to hire a junior staff person with extraordinary skills in teaching, in patient care and in clinical research, Dr. Tumeh would be my first choice."

As the eighth recipient of the Tetalman Award, Dr. Tumeh expressed his gratitude and the hope that his future work will continue the prize's legacy. The Tetalman Memorial Award honors the memory of Marc Tetalman, MD, a highly respected and productive nuclear medicine clinician and researcher who was killed during a robbery at the SNM Annual Meeting in 1979. ■