
RSNA Press Release

RSNA Announces Honored Lecturers and Topics of Annual Orations

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Media Contacts:

Maureen Morley Heather Babiar
(630) 590-7754 (630) 590-7738
mmorley@rsna.org hbabiar@rsna.org

CHICAGO, Nov. 29, 2004 - Each year, three distinguished researchers are selected to deliver honored lectures during the Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA). The honored lecturers for RSNA's 90th Assembly are Michael E. Phelps, Ph.D., Los Angeles; Harry K. Genant, M.D., San Francisco; and Brian O'Sullivan, M.D., Toronto.

Oration topics this year are "Molecular Imaging: From Nanotechnology to Patients," "The Future of Bone Imaging in Osteoporosis" and "Redefining Therapeutic Targets in the Treatment of Soft Tissue Sarcoma."

Eugene P. Pendergrass New Horizons Lecture

Dr. Phelps, the Norton Simon Professor and chairman of the Department of Molecular & Medical Pharmacology at the University of California Los Angeles (UCLA) School of Medicine, will speak on "Molecular Imaging: From Nanotechnology to Patients."

Along with his colleague, the late Edward Hoffman, Ph.D., Dr. Phelps helped bring radiology into the 21st century through the invention of the positron emission tomography (PET) scanner. This scanner was the first device to allow noninvasive measurement of the biochemistry and biology of normal organ function and to permit molecular diagnostics of disease-from cancer to neurologic and vascular diseases.

In his presentation, Dr. Phelps will discuss the revolutionary changes that are occurring through the merger of physical, biological and medical sciences that focus on new approaches to molecular diagnostics and therapeutics, and the benefit they will provide to molecular imaging.

He will describe molecular and structural imaging techniques-including PET, magnetic resonance (MR) imaging, computed tomography (CT) and optical imaging-that are helping physicians and scientists gain access to the molecular basis of disease for diagnostics and to guide the discovery and assessment of drugs. He will also describe the merger of multiple imaging technologies into single devices to consolidate structural and biological information

for molecular imaging diagnostics.

In addition to his other duties at UCLA, Dr. Phelps is the director of the Institute for Molecular Medicine and director of the Crump Institute for Molecular Imaging. He is also one of the founders of the Academy of Molecular Imaging and is a member of the Institute of Medicine and the National Academy of Sciences.

Dr. Phelps has published more than 640 peer-reviewed scientific articles, books and book chapters, has been principle investigator of more than \$225 million in grants, and has been recognized through numerous national, international and Presidential awards.

Annual Oration in Diagnostic Radiology

Dr. Genant, a world-renowned expert in osteoporosis assessment, bone densitometry and musculoskeletal imaging, will deliver the lecture, "The Future of Bone Imaging in Osteoporosis." He will describe the considerable progress made in advancing bone imaging for osteoporosis assessment, and outline the challenges that remain.

Standard bone mineral densitometry (BMD) provides important information about osteoporosis diagnosis and fracture risk assessment; however, considerable evidence indicates that BMD only partially explains bone strength and fracture resistance.

Imaging the bone's macro and microstructure can provide information beyond BMD, and lead to improved fracture risk prediction, clarification of the pathophysiology of skeletal disease, defined skeletal response to therapy and improved assessment of biomechanical relationships.

Dr. Genant is president of the International Skeletal Society and chair of the World Health Organization Task Force on Osteoporosis. He is a professor emeritus at the University of California San Francisco (UCSF), and is the founder and executive director of the UCSF Osteoporosis and Arthritis Research Group.

He also is a cofounder and board chairman of Synarc Inc., a global contract research organization specializing in management of quantitative imaging and biomarkers in multicenter, multinational, pharmaceutical drug trials.

Dr. Genant has been editor or co-editor of more than 30 books. He has been author or co-author of more than 170 chapters or invited articles, nearly 500 articles in peer-reviewed scientific and medical journals, and more than 1,000 abstracts presented at national and international scientific and professional gatherings.

Annual Oration in Radiation Oncology

Dr. O'Sullivan, the Bartley-Smith/Wharton Chair in Radiation Oncology and a professor in the Department of Radiation Oncology at Princess Margaret Hospital at the University of Toronto, will talk about "Redefining Therapeutic Targets in the Treatment of Soft Tissue Sarcoma." He is an international authority in the treatment of sarcomas and a past-president of the Connective Tissue Oncology Society (CTOS). Dr. O'Sullivan is also the head of the disease site sections for both head and neck cancer and sarcoma at the Department of Radiation Oncology, Princess Margaret Hospital.

He will describe groundbreaking research efforts over the past 15 years in the management of soft-tissue sarcoma and how sarcoma research is at the forefront of molecular-target

intervention for solid tumors. He'll also describe new approaches to multidisciplinary management, including how expertise in diagnostic imaging, pathology, surgical oncology, radiation oncology and medical oncology provide a model for many cancers.

Dr. O'Sullivan, who broke new ground when he became the first radiation oncologist practicing outside of the United States to examine in the American Board of Radiology, is vice-chair of the Sarcoma Disease Site Committee of the American College of Surgeons Oncology Group (ACOSOG) clinical trials organization and of the Radiation Oncology Committee for ACOSOG.

Also an international expert in cancer staging, Dr. O'Sullivan is a member of the Core TNM Committee of the International Union Against Cancer (UICC) in Geneva, where he is also the domain expert for sarcoma and head and neck cancer. In this capacity, he represents the UICC for these anatomic disease sites at the American Joint Committee on Cancer.

Some of his recent research emphasis has been on volume delineation and targeting for conformal radiotherapy and intensity-modulated radiotherapy (IMRT) for both head and neck cancers and sarcomas. He has also been working on the incorporation of image-guided techniques into enhanced radiotherapy delivery platforms to achieve higher precision and to minimize uncertainty in treatment delivery.

Dr. O'Sullivan has been the author or co-author of more than 130 peer-reviewed papers and nearly 80 scientific articles or book chapters. He has presented nearly 100 invited lectures at national and international medical meetings.

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RSNA is an association of more than 37,000 radiologists, radiation oncologists and related scientists committed to promoting excellence in radiology through education and by fostering research, with the ultimate goal of improving patient care. The Society is based in Oak Brook, Ill.