





C. Clifton Ling, Ph.D.

Innovation & Implementation: Medical Physics in Cancer Care

A Science Day in Honor of
C. Clifton Ling, Ph.D.

Monday, April 7, 2008

A CME COURSE SPONSORED BY
MEMORIAL SLOAN-KETTERING
CANCER CENTER



Memorial Sloan-Kettering Cancer Center
Rockefeller Research Laboratories
430 East 67th Street, New York, NY 10021

COURSE DIRECTOR'S MESSAGE

Dear Friends and Colleagues,

We are pleased to invite you to attend a special continuing medical education course held in recognition of the accomplishments of C. Clifton Ling, Ph.D. The course will be held on April 7, 2008 at Memorial Sloan-Kettering Cancer Center. The educational objectives of the course are to review recent advances in cancer research and treatment, particularly as they relate to medical physics, tumor radiobiology, imaging sciences and radiotherapy.

We hope that you will join our esteemed guest faculty and Memorial Sloan-Kettering Cancer Center staff for this superb educational opportunity. 5.0 Category 1 CME credits will be awarded for participation, and registration is complimentary.

We look forward to seeing you in New York.

Sincerely,

Jean St. Germain, M.S.

Acting Chair

Department of Medical Physics

CAMPEP credits will be available.

Innovation & Implementation: Medical Physics in Cancer Care

A Science Day in Honor of C. Clifton Ling, Ph.D.
April 7, 2008

Memorial Sloan-Kettering Cancer Center
Rockefeller Research Laboratories
430 East 67th Street, New York, NY 10021

SPEAKERS

Peter J. Biggs, Ph.D.

Radiation Biophysicist, Associate Professor at Harvard
Medical School
Massachusetts General Hospital

Arthur L. Boyer, Ph.D.

Director, Physics Division
Scott and White Clinic

William Dewey, Ph.D.

Professor Emeritus, Department of Radiation Oncology
University of California San Francisco

Edward R. Epp, Ph.D.

Professor of Radiation Oncology, Emeritus
Harvard University

Michael Goitein, Ph.D.

Professor of Radiation Oncology (Biophysics) Emeritus
Harvard Medical School

Samuel Hellman, M.D.

A.N. Pritzker Distinguished Service Professor Emeritus
University of Chicago

Gerald Kutcher, Ph.D.

Dean's Professor of the History of Medicine
Binghamton University, Department of History

Radhe Mohan, Ph.D.

Professor and Chairman, Dept. of Radiation Physics
University of Texas M.D. Anderson Cancer
Center

Theodore Phillips, M.D.

WK Fu Distinguished Professor of Radiation Oncology
University of California San Francisco

Lynn J. Verhey, Ph.D.

Professor and Vice-Chair, Dept. of Radiation Oncology
University of California San Francisco

MSKCC FACULTY

Howard Amols, Ph.D.

Attending Physicist and Chief, Clinical Physics Service
Member, Memorial Sloan-Kettering Cancer Center

Zvi Fuks, M.D.

Member, Memorial Sloan-Kettering Cancer Center

John L. Humm

Attending Physicist, Medical Physics
Member, Memorial Sloan-Kettering Cancer Center

Jason A. Koutcher, M.D., Ph.D.

Attending Physicist and Chief, Imaging Physics Service
Member, Memorial Sloan-Kettering Cancer Center

Gloria C. Li, Ph.D.

Attending Biophysicist, Radiation Oncology
Member, Memorial Sloan-Kettering Cancer Center

Gig S. Mageras, Ph.D.

Attending Physicist and Chief, Computer Service
Member, Memorial Sloan-Kettering Cancer Center

Ellen D. Yorke, Ph.D.

Attending Physicist, Medical Physics
Member, Memorial Sloan-Kettering Cancer Center

Dr. Clifton Ling

was born in China and received his primary and secondary education in Hong Kong. He attended universities in the USA, and obtained his Ph.D. in nuclear physics from the University of Washington, Seattle in 1971. He then entered radiation biophysics as a Research Fellow at Memorial Sloan-Kettering Cancer Center. Since then, he has held academic

appointments at the Massachusetts General Hospital and Harvard Medical School, George Washington University Medical Center, and the University of California, San Francisco. In 1989, he returned to MSKCC as the Enid A. Haupt Professor and Chairman of the Department of Medical Physics and Professor of Radiology (Physics), Weill Cornell Medical College of Cornell University. In 2007, Dr. Ling stepped down as Chair of Medical Physics and is at present working at MSKCC and Varian Medical Systems.



Dr. Ling has been an active participant in many professional societies such as the AAPM, the Radiation Research Society, and ASTRO. In AAPM, he served on the Board of Directors (1982-1987), chaired the Scientific Program Committee (1983-87) and Science Council (1991-93). He chaired the ASTRO Radiation Physics Committee, and was a councilor in physics in the Radiation Research Society. He was on grant review panels of both the U.S. and Canadian National Cancer Institutes, and is on the Nuclear and Radiation Studies Board of the National Academies. He has been on the editorial boards of Medical Physics, the International Journal of Radiation Oncology/Biology Physics, Radiotherapy Oncology, Seminars in Radiation Oncology, and Radiation Research.

Dr. Ling has received numerous honors and awards, including Honorary Member of ESTRO, the Ray Bush Visiting Professor of Princess Margaret Hospital, the Suntharalingam Lecturer of Thomas Jefferson University, Speaker of the Royal College of Physicians and Surgeons of Canada, the Ira Spiro Visiting Professor of Harvard Medical School, the Franz Buschke Lecturer of the UCSF, and the James Purdy Lecturer of the Washington University, St. Louis. He received the AAPM Coolidge Award in 2004, the Gold Medal from ASTRO in 2006, and the Lifetime Achievement and Contribution Award, Radiation Oncology Society, Republic of China, 2007.

Dr. Ling's research interests range from the fundamentals of cancer radiation biology to optimized radiation treatment planning and delivery, and more recently biological imaging as applied to cancer management. He has contributed to brachytherapy dosimetry, particularly of ^{125}I seeds. In collaboration with other scientists and clinicians, he has participated in the development of 3D-CRT and IMRT, and ushered in the widespread use of these advanced techniques. In biological research, Dr. Ling has studied oxygen effect, dose rate effects and the repair of sublethal damage, hypoxic cell radiosensitization, radiation induced carcinogenesis and apoptosis, and the effects of oncogenes on radiosensitivity. At present, his laboratory is focusing on the biological basis of molecular and functional imaging. Dr. Ling has authored nearly 250 peer-reviewed papers and over 30 chapters in books and proceedings. He has been the principal investigator on numerous grants from the National Institutes of Health, the Department of Energy, the Department of Defense, and the American Cancer Society.

SCHEDULE

8:15- 8:45am	Registration and Continental Breakfast
8:45-9:00am	Introduction Jean St. Germain, M.S. Robert Wittes, M.D.
9:00-9:10am	Edward R. Epp, Ph.D. – Session Chair
9:10-9:30am	Discovering the Past, Inventing the Future Samuel Hellman, M.D.
9:30-9:50am	Linking Hypoxia-Induced Pathway, Radioresistance and Molecular Imaging Gloria C. Li, Ph.D.
9:50-10:10am	The Patient's-Eye View Michael Goitein, Ph.D.
10:10-10:30am	Coffee Break
10:30-10:40am	William Dewey, Ph.D. – Session Chair
10:40-11:00am	The Clinical Role of Particle Therapy in Radiation Oncology Lynn Verhey, Ph.D.
11:00-11:20am	Proton Therapy for Ocular Melanoma — the 1st and Ultimate AIGRT Theodore Phillips, M.D.
11:20-11:40am	Proton Therapy – Is Current Exuberance Irrational? Radhe Mohan, Ph.D.
11:40am-noon	Managing Geometric Uncertainties in High Precision RT Gig S. Mageras, Ph.D.
12:00 -1:15pm	Lunch
1:15-1:25pm	Peter J. Biggs, Ph.D. – Session Chair
1:25-1:45pm	Normal Tissue Complication Probability in the IG-IMRT World Ellen D. Yorke, Ph.D.
1:45 -2:05pm	Treatment Planning for PRX302: A Biological Agent Against Prostate Cancer Arthur L. Boyer, Ph.D.
2:05-2:15pm	Howard Amols, Ph.D. – Session Chair
2:15-2:35pm	MR Studies as Predictors of Outcomes in Oncology Jason A. Koutcher, M.D., Ph.D.
2:35-2:55pm	Towards Non-Invasive Hypoxia Imaging by PET Scanning John L. Humm, Ph.D.
2:55-3:10pm	Coffee Break
3:10-3:20pm	Gerald Kutcher, Ph.D. – Session Chair
3:20-3:40pm	From IMRT to IGRT: Ling's Journey at MSKCC Zvi Fuks, M.D.
3:40-4:00pm	Remarks C. Clifton Ling, Ph.D.

COURSE INFORMATION

COURSE OVERVIEW

The course is designed to review recent advances in cancer research and treatment, particularly as they relate to medical physics, tumor radiobiology, imaging sciences and radiotherapy. The course will examine laboratory research and clinical application, especially the development and implementation of new methods of treatment planning and delivery.

TARGET AUDIENCE

The following professionals should be broadly interested in this course: medical physicists, radiation oncologists, cancer biologists, imaging scientists and other allied professionals.

EDUCATIONAL OBJECTIVES

By attending this course the participants will learn about

- translational research in radiation and imaging sciences
- advances in radiotherapy planning and treatment
- intensity-modulated and image-guided radiotherapy

COURSE DESIGN

This course is comprised of lectures and discussions, encouraging exchange of ideas between faculty and participants.

ACCREDITATION

Memorial Sloan-Kettering Cancer Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

CME CREDIT

Memorial Sloan-Kettering Cancer Center designates this educational activity for a maximum of 5.0 AMA PRA Category 1 Credit(s)TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This seminar series has been approved by CAMPEP for up to 5.0 hours of Medical Physics Continuing Education Credit (MPCEC) for qualified medical physicists.

DISCLOSURE POLICY STATEMENT

Memorial Sloan-Kettering Cancer Center (MSKCC) relies upon faculty participants in its CME Program to provide educational information that is objective and is as free from bias as possible. In accordance with the nationally accepted guidelines, faculty are asked to indicate any commercial relationship that might be perceived as a real or apparent conflict of interest.

HOTEL ACCOMMODATIONS

Hotel options can be found at the following link:

www.mskcc.org/accommodations

Please feel free to contact the CME Office at (646) 227-2025 should you require additional assistance.

MSKCC CONTACT

Irene Cruz

Office of Continuing Medical Education
Memorial Sloan-Kettering Cancer Center
633 Third Avenue, 12th Floor
New York, NY 10017

Telephone: (646) 227-2025

Fax: (212) 557-0773

e-mail: cruzi1@mskcc.org



Innovation & Implementation: Medical Physics in Cancer Care

A Science Day in Honor of C. Clifton Ling, Ph.D. April 7, 2008

FIRST NAME

LAST NAME

DEGREE

INSTITUTION

CITY

STATE

POSTAL CODE

COUNTRY

EMAIL ADDRESS

PHONE

FAX

Yes. I will attend the symposium on April 7, 2008.

TO RSVP

Fax this form to: (212) 557-0773

Or contact Irene Cruz at: (646) 227-2025, cruzi1@mskcc.org

Office of Continuing Medical Education

MSKCC | 633 Third Avenue, 12th Floor

New York, NY 10017

Pre-Registration is required to ensure adequate seating.

The favor of a reply is requested by March 28, 2008.

If you have any questions or require further information,
please contact the Office of Continuing Medical Education
(646) 227-2025

