

“Although we have to start with more advantaged countries lending a hand to nations earlier in their development, the aspirational goal of international educational endeavors in radiation oncology is that eventually the learning will be a two-way street, with ideas and knowledge flow in both directions.”

*Brian Kavanagh
ASTRO President, 2016*

ASTRO Strategic Initiatives

1. Goal 1: ASTRO will provide state-of-the-art education and lifelong professional development in the effective use of radiation as a tool for the treatment of patients with cancer and benign disease.
2. Goal 2: ASTRO will publish the premier scientific and practice journals in radiation oncology.
3. Goal 3: ASTRO will advance the science through research and innovation to improve clinical outcomes for each patient.
4. ASTRO will promote advances in research to raise the profile of the specialty.
5. Goal 4: ASTRO will be the premier voice for advocacy and health policy for radiation oncology.
6. Goal 5: ASTRO will shape the framework for the delivery of safe, high-quality, high-value health care to all patients (cancer, benign disease) by the radiation oncology team.

Goal 1: ASTRO will provide state-of-the-art education and lifelong professional development in the effective use of radiation as a tool for the treatment of patients with cancer and benign disease.

- ASTRO will be the primary source for the educational needs of radiation oncology and will continue to organize the world's leading radiation oncology scientific meeting.
- ASTRO will support continuous certification by increasing the number of available online/live SAMS and encouraging member participation as a critical component of maintaining clinical skills.
- ASTRO will continue the support and development of small meetings as appropriate for the needs of the specialty.
- ASTRO will continue to provide educational resources for all radiation oncology trainees and interested medical students.
- **ASTRO will work with radiation oncology societies globally to coordinate educational opportunities.**



Leadership Interest/Awareness

Tim R. Williams, MD, FASTRO

ASTRO President, 2008-9

Chair 2009-2010*

Immediate past-Chair, 2010-11**

***Tasked when leaving the BoD with figuring out a roadmap ahead for international activities*

Report of the International Education Subcommittee Task Force

Tim R. Williams, MD FASTRO, Chair

October 26, 2012

Task Force Members:

C. Norman Coleman MD, Allan Chen MD PhD, Aaron Hicks MD, Aruna Turaka MD, Beatriz Amendola MD, Bernard Cummings MD, Bin Teh MD, Carl Nuesch MD, David Morgan MD, Fang Fang Yin PhD, William Shipley MD, Gaurav Bahl MD, Graeme Morgan MD, Isaac Vaisman MD, Ismail Kazem MD, Jatinder Palta PhD, Jean-Claude Rwigema MD, James Olsen MD, Len Gunderson MD, Luq Dad MD, Michael Steinberg MD, Anthony Zietman MD, Colleen Lawton MD, Miriam Calaguas MD, Nancy Lee MD, Natia Esiashvilli MD, Nina Mayr MD, Reuven Grossman MD, Robert Miller MD, Robert Mutter MD, Terry Wall MD JD, Nancy Ellerbroek MD, Eric Donnelly MD, Gita Suneja MD, Bahman Emami MD, Laura Dawson MD, Eduardo Rosenblatt MD, Brandon Fisher MD

IES Mission Statement

The objective of the ASTRO International Education Subcommittee (IES) is to assist in the realization of the Society's strategic plan with respect to international activities. IES not only plays the important role of educational exchange for radiation oncology professionals between USA and other countries, but also serves as the centralized resource to promote fellowship, research and clinical expertise on multiple levels with physicians, physicists, therapists and ancillary supportive representatives from other countries. IES coordinates and identifies novel approaches to answer the increasing interest in global outreach from ASTRO members by serving as the international hub and coordination of its global health efforts and those of U.S. institutions, medical specialty societies, individuals and other international societies. Representatives from other major oncology societies including ESTRO, JASTRO, ASCO, CSTRO, CARO, TASTRO, SASCRO, and RANZCR, as well as NCI/NIH, IAEA, RTOG, SCAROP, ADROP, and ARRO, will play key roles in the IES efforts and activities.

Re-organized ASTRO International Education Subcommittee

new group

Sylvia Formenti, MD (SCAROP)
 Mark Langer, MD (ADROP)
 Mirah Shah, MD (ARRO)
 Norman Coleman, MD, FASTRO (NCI)
 Mitchell Machtay, MD (RTOG)

Nina Mayr, MD, FASTRO (Chair)
 Kenneth Hu, MD (Vice-Chair)
 Timothy Williams, MD, FASTRO (Ex-Officio)

Special Interest Work Group

Host Representative Work Groups

International Liaison Work Group

IES/IT Work Group

Ancillary Services Work Group

Jatinder Palta, PhD, FASTRO (Chair)
 Cynthia Eccles, CMD, RT (V-Chair) (7)

Bhadrasain Vikram, MD (Chair) (IAEA)
 Felipe Calvo, MD (Vice-Chair) (ESTRO)
 Soren Bentzen, DSc, PhD (ESTRO)
 Edward 'Ted' Trimble, MD (NCI/NIH)
 Susan Miesfeldt, MD (ASCO)
 Kenji Nemoto, MD (JASTRO)
 Chris Milross, MD FRANZCR FRACMA (RANZCR)
 Jason Chia-Hsien Cheng, MD (TASTRO)
 Raymond Abratt, MD (SASCRO)
 Eduardo Rosenblatt, MD (IAEA)
 Bernard Cummings, MB (CARO)

India WG (10):

David Morgan, MD, ChB (Chair)
 Akila Viswanathan, MD (V-Chair)

Latin America WG (8):

Beatriz Amendola, MD, FASTRO (Chr)
 Higinia Cardenes, MD, PhD (V-Chair)

China WG (11):

Nancy Lee, MD (Chair)
 Zhongxing Liao, MD (V-Chair)

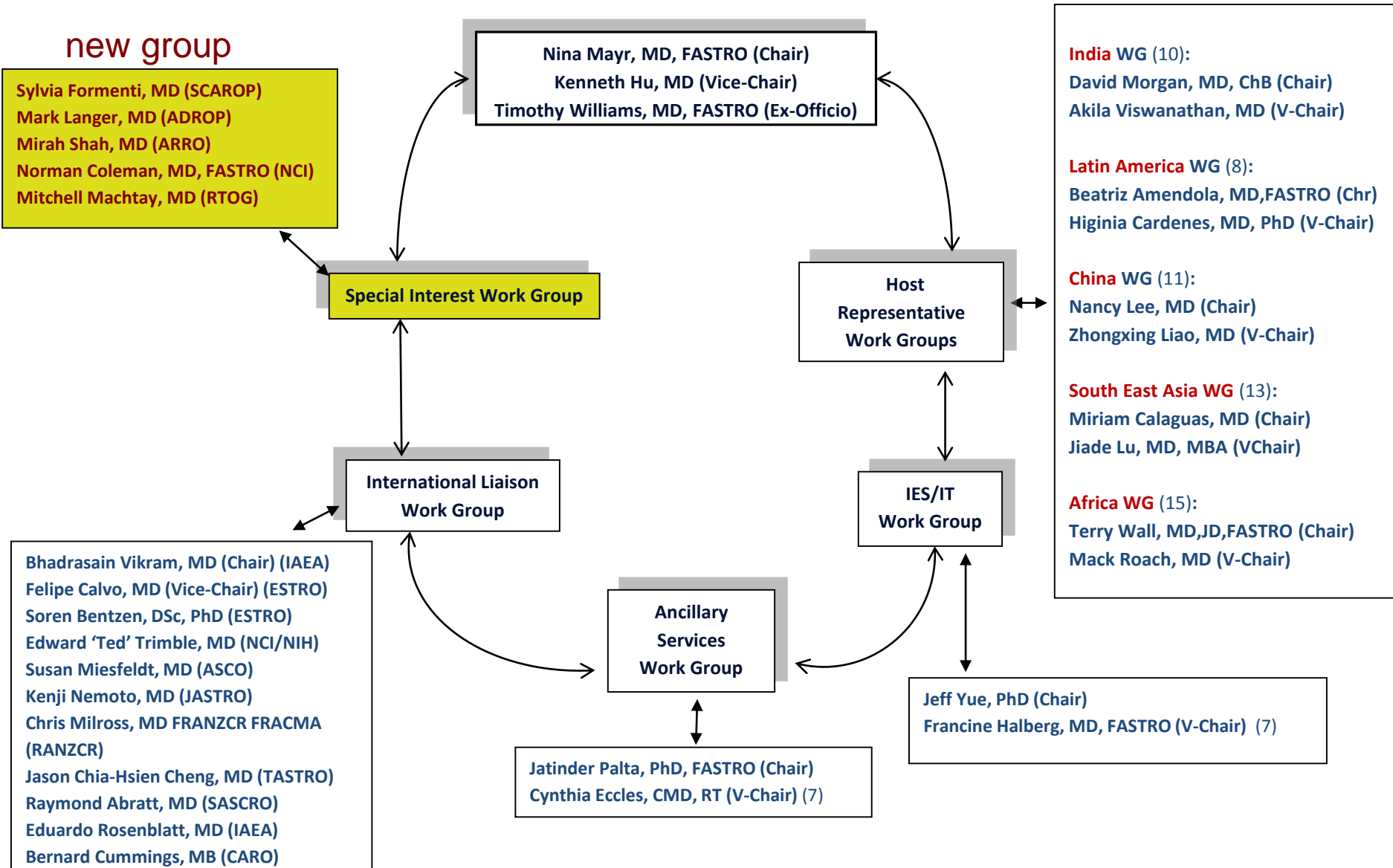
South East Asia WG (13):

Miriam Calaguas, MD (Chair)
 Jiade Lu, MD, MBA (VChair)

Africa WG (15):

Terry Wall, MD, JD, FASTRO (Chair)
 Mack Roach, MD (V-Chair)

Jeff Yue, PhD (Chair)
 Francine Halberg, MD, FASTRO (V-Chair) (7)



Initial charge to the 5 Regional Work Groups:

Educational Needs Assessment

3 Top Priorities	<u>Technology Assessment:</u> Treatment delivery and planning, QA	<u>Ancillary Services:</u> Therapists, physicists, dosimetrists, nurses, support staff	<u>IT Infrastructure</u> across region, methods of information exchange
-------------------------	---	--	---

Proposed Strategies

3 Top Priorities	Overall strategies to improve education in region	3 ways ASTRO can improve education (in order of priority)	Metrics to track educational success?
-------------------------	--	--	--



Example of early observations:
Africa – Educational Needs Assessment



Top Priorities (2013)

1. Establish direct contact/relationships with centers in countries other than those with well-established programs
2. Need for collaboration with AAPM to enhance Medical Physics training
3. Need for ASTRO resources to Ministries of Health in nations with limited or no radiation therapy

ASTRO/ARRO Global Health Scholars Program

<https://www.astro.org/arro/global-health-initiative/global-health-scholar-program.aspx>

- Launched in 2011
- allows senior residents to work on a resident-designed clinical, outreach/educational or research project in a developing nation.
- Intended to foster a global perspective of oncology and encourage ongoing outreach, research and progress in developing countries

<http://tracybray.tumblr.com/>



Summer 2013



Dr. Brandon Fisher (right) and Adam Shulman (third from right), Radiating Hope Senegal project director, meet with the directors of Institut Curie de L'Hospital Aristide Le Dantec (IC) in Dakar, Senegal.



Dr. Muthana Al-Ghazi (seated) and physicists and radiation oncologists from the Baghdad Radiotherapy and Nuclear Medicine Hospital work in the treatment planning suite.



Dr. Tom Eichler treats a young patient in Haiti.



Dr. Daniel Schiffner lectures at the Peruvian Society of Radiation Oncology and Medical Physics' annual meeting.

Aspirational goal: International Education as Rachel Rabinovitch, MD

Visiting Professor in Israel, December 2014-Jan 2015



In support of standard BRCA screening

VIEWPOINT Population-Based Screening for BRCA1 and BRCA2
2014 Lasker Award

Mary Clendinning, PhD
Department of Health and Behavior
Harvard University

Suzanne Lippman, MD
Medical Director
Breast Cancer
Prevention, Health and
Equity, University of
Michigan, Ann Arbor

Robert Lohr, MD
Faculty of Medicine
Hebrew University of
Jerusalem, Jerusalem
Head and Department
of Family Medicine,
Golda Meir Medical
Center, Tel Aviv

Population-Based Screening for BRCA1 and BRCA2
2014 Lasker Award

“...To identify a woman as a carrier only after she develops cancer is a failure of cancer prevention.”





Noga Screening Clinic
Shaare Zedek Hospital, Jerusalem
Prina Mar, RN, PhD, Started Sept 2007

Initially funded by Jack Klein (Israel-LA),
wife died of breast cancer (not BRCA),
now funded by Kupat Cholim

- ▶ Breast exam by breast surgeon
- ▶ Annual mammogram and breast U/S
- ▶ Ca125 q6 months
- ▶ Endo-vaginal U/S q 6months
- ▶ Breast exam
- ▶ Annual MRI (q25yrs)
- ▶ Ca125 q6 months
- ▶ Endo-Vaginal U/S q 6months

*MRI sooner if pregnancy or fertility treatment planned
** U/S every 8 up to 150





2015-2016 IES highlights

Ken Hu, Zhongxing Liao



- **ASTRO Annual meeting**
 - Two 90-minute educational sessions
 - How could/should U.S. methods be adapted in LMIC's?
 - Summary courses in Mandarin and Spanish
- **eContouring Initiative**
 - Ambassadors traveling to train international practitioners
 - Onyi Balogun, Armenia; Mauricio Gamez, Mexico; Christine Fisher, Southeast Asia; Ray Mailhot, Argentina
- **Chartounds.com**
 - review of treatment management and planning for the purpose of education expansion to the international community
- **iTreatSafely- Todd Pawlicki**
 - a website with physics-based videos and comments
 - Lawrence Court organizing videos for use by the workgroups

2015: IES workgroup activities

- Latin America
 - Best of Astro, Mexico
 - Annual meeting courses in Spanish
- Ind
 - Needs survey published IJROBP, S Grover et al
 - Best of Astro meeting, India
- China
 - Mandarin refresher course at annual meeting
 - Various web-based educational activities
- Southeast Asia
 - Plans for Best of ASTRO session at a Federation of Asian organizations in Radiation Oncology (FARO) meeting
- Africa
 - Dr Surbhi Grover, of U Penn, now in Botswana, inviting residents
 - Needs assessment project underway
- Turkey
 - Best of ASTRO in Istanbul hosted by Dr Ugur Selek

ASTRO IES activity at annual meeting

Building on interest

2016

International breakfast demonstrating growing international membership

Meeting for members from India focus group

Afternoon session and dinner for members from China, in Mandarin

Day long Latin America course in Spanish

- Double auditorium filled to capacity



SCIENCE OF TODAY
HOPE FOR TOMORROW

- Pilot Programs reviewed and vetted host program speakers
- **2017**--IES members partnered with host organizers
 - *Philippines—Calaguas/SEAROG/FARO/PROS
 - *India—Kataria/Viswanathan
 - Turkey—Selek
 - *BOA in conjunction with Econtouring

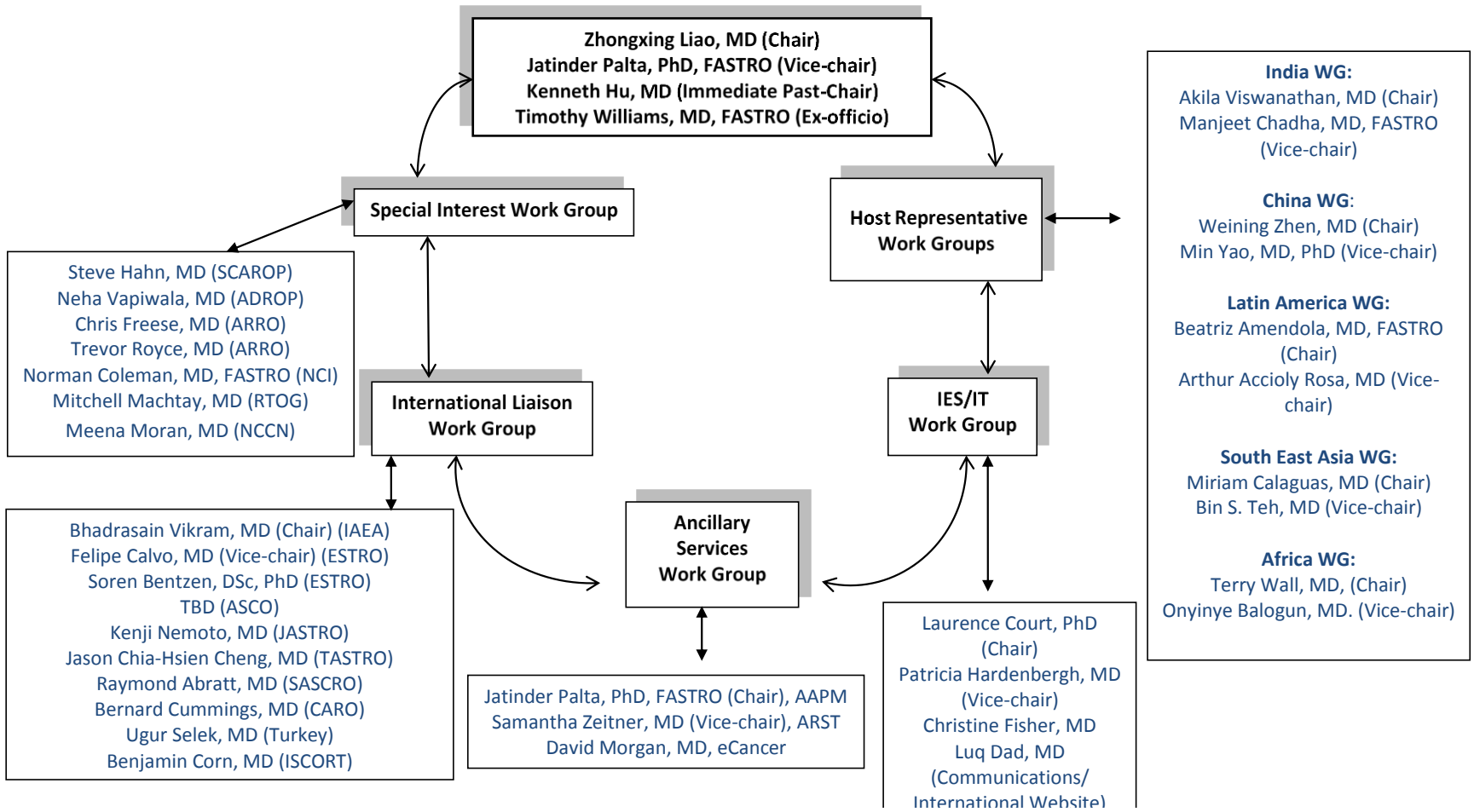
Panel for our International Session at the ASTRO Annual Meeting, 2016-Boston

- **Dad Luqman: moderator and organizer**
- **Partnering to transform global cancer care: International Cancer Expert Corps**
- [C. Norman Coleman, MD, FASTRO](#)
- **Improving quality and safety in Radiation Medicine: iTreatSafely**
- [Todd Pawlicki, PhD, FASTRO](#)
- **Empowering our Future: Trainee Action in Global Health-AARO**
- **Trevor J Royce, MD, MS**
- **Linking Oncology Globally: Chartrounds.com**
- [Patricia Hardenbergh, MD](#)
- **Inspiring and Empowering ASTRO membership To Be Involved in Global Health.**
- [Mary Gospodarowicz, MD, FASTRO](#)

ASTRO 2016

ENHANCING VALUE
IMPROVING OUTCOMES

IES 2016



Regional Workgroup Priorities Refined

- **SE Asia**
 - Current Treatment Protocols
 - Integrating advanced technologies IMRT/IGRT/SBRT
- **India**
 - Clinical Trials Workshop in conjunction with AROI
 - BOA + Econtouring
 - Web-based Chart Rounds
- **Africa**
 - Needs survey —physician, dosimetrists, physics
 - Gabon—Econtouring—breast
 - Ethiopia—Facilitate a modern radiation facility at Mekelle University
- **China**
 - Quality assurance and safety survey
 - Survey for acceptance of Multidisciplinary Tumor Boards
 - Best of ASTRO with CISTRO Annual Meeting
- **Latin America**
 - Promote Educational Hubs
 - Collaborate with eCancer/SEOR to develop online interactive training for therapists/dosimetrists in Spanish

Publication of IES initiatives in *Seminars in Radiation Oncology*
edited by Norm Coleman and Tim Williams.

Bridging innovation and outreach to overcome global gaps in Radiation Oncology through Information and Communication Tools (ICTs), Trainee Advancement, Engaging Industry, Attention to Ethical Challenges, and Political Advocacy.

Luqman Dad, MD¹, Trevor J. Royce, MD, MS², Zachary Morris, MD, PhD³, Meena Moran, MD,⁴ Todd Pawlicki PhD⁵, Deepak Khuntia, MD⁶, Patricia Hardenbergh, MD⁷, Bernard Cummings, MB, ChB⁸, Nina Mayr, M.D⁹. Kenneth Hu, MD¹⁰

Publication projected in Spring 2017

ASTRO 2016

ENHANCING VALUE
IMPROVING OUTCOMES

Future

- Distance learning/peer review
 - International web-based chart rounds (Hardenbergh)
 - Resource Adapted NCCN Guidelines (Moran)
 - Safety and Quality Assurance Regional Platform (Palta)
- Networking
 - IAEA—ASTRO endorsement ICARO 2
 - NCI—Career pathways in Global Health
 - ASCO—Multidisciplinary Management



ASTRO 2016

ENHANCING VALUE
IMPROVING OUTCOMES