Innovate, Collaborate: Transform…

Welcome to the 2019 ASTRO Annual Meeting

By Theodore DeWeese, MD, FASTRO, ASTRO President

It is an absolute pleasure to welcome you to the 61st ASTRO Annual Meeting. What better setting than Chicago, a city renowned for its innovation (home of the first skyscraper!), for this year’s meeting. This will be my 26th ASTRO meeting and I remain as excited about this meeting as when I attended as a resident. There will be opportunity to meet new people, to learn about new basic, translational and clinical research findings, and to be inspired by the quality of our youngest members, knowing our field is in good hands for the future. Taken together, the next four days promise to be one of innovation, collaboration and transformation.

I would strongly argue that in the world of cancer medicine, no other oncologic specialists are as well positioned to develop and translate innovative research and to serve as natural conveners of other oncology specialties through multidisciplinary collaboration than radiation oncologists. We all strive to transform science and improve care for patients on a daily basis and the ability for our specialty to lead in these domains has never been greater. But, if we are to be highly successful, we cannot do these things in isolation. To make a meaningful impact in the lives of patients, we must also work closely with colleagues outside our field. Hence the theme of our 61st Annual Meeting: Innovate, Collaborate: Transform.

This year’s program, designed by the Annual Meeting Planning Committee, is an exciting and educational forum that mixes both tried and true elements, like the Plenary and Clinical Trials sessions, along with a structure that will make the meeting a bit more manageable, with shorter sessions allowing more time for networking, and even morning yoga!

To kick things off, this morning’s Presidential Symposium has been re-envisioned in a way that seeks to be engaging and more interactive using both a didactic format, where we all meet as one large group, followed by 13 breakout sessions that will allow for more interaction and conversation between members and experts on the topic: “Curing Metastatic Disease with Radiotherapy: Myth or Reality?” During the first portion, three dynamic speakers — Ashani Weeraratna, PhD, Karyn Goodman, MD, MS, and Charles Drake, MD, PhD — will provide level-setting discussions to bring us all on the same playing field around the topic. We will then listen and learn as Robert Continued on page 6
STAGE 3 NSCLC IS TREATED WITH CURATIVE INTENT

Learn more at the AstraZeneca booth

References:

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What are you most looking forward to at this year’s Annual Meeting?

“I am most looking forward to seeing the innovative changes ASTRO has in store for this year’s Annual Meeting and the opportunities to learn from and collaborate with colleagues.”

— Ashley Albert, MD
University of Mississippi Medical Center

“For a radiation oncologist, ASTRO is it! It’s where everything happens. I am thrilled every year to learn about the best radiation oncology research, dialogue with colleagues from around the world on new approaches and trends, and see brilliant new contributors shaping the future of radiation oncology. Plus, this is a wonderful time to celebrate radiation oncology and what we stand for as a profession.”

— Sue Yom, MD, PhD, MAS
University of California San Francisco
Visit the Innovation and Solution Showcase

Visit the Innovation and Solution Showcase, ASTRO’s exhibit hall, with more than 200 companies featuring the latest technology, services and products in cancer treatment. Pick up a copy of the Exhibitor Directory for information about the companies and products being displayed on the show floor. Also in the exhibit hall find the popular ASTRO Connect booths, featuring five areas of focus: Breast, Central Nervous System, Head and Neck, Lung, and Physics. Meet the Experts in these subjects during designated times (see page 22 for the schedule).

The Innovation Hub, located in Hall F1, returns with touch screen digital posters and the popular Industry-Expert Theaters. New this year is the ASTRO Expert Theater, featuring ASTRO specialists on code development and valuation. Learn about the process, what’s involved and why collaboration is critical. The Innovation Hub is also the venue for eight Editor Roundtables, opportunities to meet the editors of all three ASTRO journals and discuss timely issues facing our journals and scientific publishing in general. See page 5 for a schedule of Editor Roundtable topics and times.

The Innovation and Solution Showcase is in Halls F1 and F2 on Level 3 and is open Sunday through Tuesday from 10:00 a.m. until 5:00 p.m.

SCHEDULE AT A GLANCE

Monday, September 16, 2019

8:00 a.m. – 8:30 a.m. Science Highlights
Room: W181

8:00 a.m. – 9:15 a.m.
- Contouring Session 04
- Contouring with the Experts – Gynecologic Cancer
Room: W104

8:00 a.m. – 9:00 a.m.
- Education Sessions
- EDU 01 – Practical Clinical and Physics Aspects of Residual Neck Management
Room: W184

8:00 a.m. – 9:00 a.m.
- International Session 04
- Hypoxia in the Global Context: Pathways to the Adoption of Evidence-based Practice
Room: W175

8:00 a.m. – 9:00 a.m.
- Oral Scientific Sessions
- SS 01 – Patient Reported Outcomes 1
Room: W176
- SS 07 – Passenger Safety
Room: W186
- SS 08 – Biology 2 – Immune Markers
Room: W187
- SS 09 – Physics 2 – Online Imaging and Motion Management
Room: W185

8:30 a.m. – 9:00 a.m.
- Science Highlights – Cardiovascular (GU)
Room: W181

9:00 a.m. – 9:15 a.m.
Break

9:15 a.m. – 10:15 a.m.
- Keynotes
- Artificial Intelligence and Deep Learning in Medicine
Suchi Saria, PhD, and David Magnus, PhD
Room: W375 A/B/C/D

10:00 a.m. – 5:00 p.m.
Exhibit Hall Open

10:15 a.m. – 10:45 a.m.
Break

10:45 a.m. – 12:00 p.m.
- Contouring Session 05
- Challenging Cases in Contouring for CNS Cancer
Room: W194

10:45 a.m. – 12:00 p.m.
- Education Sessions
- EDU 07 – Challenging Cases in Head and Neck Cancer
Room: W181

10:45 a.m. – 12:15 p.m.
- International Session 05
- Combination of Radiotherapy with Targeted or Immunotherapy – Clinical Trials for Evidence-based Clinical Decision
Room: W176

10:45 a.m. – 12:15 p.m.
- Mini-oral Scientific Sessions
- MO 07 – Palliative 3
Room: W186
- MO 08 – GU 2 – Anorectal and Liver Cancers
Room: W175

10:45 a.m. – 12:00 p.m.
- Oral Scientific Sessions
- SS 06 – Lung 1 – Modifying the Landscape of Thoracic Radiation Oncology
Room: W177
- SS 12 – Lung 2 – Novel Immunotherapies/ Radiation Approaches to NSCLC and PCI for SCLC
Room: W185
- SS 13 – GU 2 – Prostate Post-op, Prognostic Factors and High Risk
Room: W183

10:45 a.m. – 12:00 p.m.
- Panel Sessions
- Panel 05 – Liquid Biopsies for Predicting Radiation Response
Room: W184
- Panel 06 – The Evolving Role of Immunotherapy in Breast Cancer Treatment
Room: W196
- Panel 07 – FLAP Therapy with Proteins – Dosimetry, Safety and Experimental Evidence
Room: W178

10:45 a.m. – 12:00 p.m.
- Poster Viewing Session 06
- Poster Viewing Session 07
Room: W192

10:45 a.m. – 12:00 p.m.
- Special Session 04
- ARRO Poster Viewing with a Professor (Residents Only)
Room: W176

12:00 p.m. – 1:15 p.m.
- Lunch Break

12:00 p.m. – 5:00 p.m.
- Poster Viewing Hours
Location: Innovation Hub, Hall F1

12:15 p.m. – 1:30 p.m.
- ARRO President Viewing with a Professor (Residents Only)
Room: W176
Location: Innovation Hub, Hall F1

12:15 p.m. – 1:15 p.m.
- AAM/ASTRO Luncheon (Leadership)
Room: W190

12:15 p.m. – 1:15 p.m.
- Wellness Luncheon
Mindful Awareness – Compassionate Engagement
Room: W192

1:15 p.m. – 2:00 p.m.
- Presidential Address
- Our Promise, Our Future
Theodore DeWeese, MD, FASRO
Room: W375 A/B/C/D

2:00 p.m. – 3:30 p.m.
- Plenary Session 02
Room: W375 A/B/C/D

3:30 p.m. – 4:15 p.m.
- Break

3:45 p.m. – 4:45 p.m.
- Special Session 05
- AASR-ASTRO-AMRO-SPRO-IVRO-CHEQI: Speed Mentoring: Navigating the Ladder of Success While Developing Work Life Integration
Location: Poster Lounge, Innovation Hub, Hall F1

4:15 p.m. – 5:30 p.m.
- Contouring Session 06
- Contouring for Gastrointestinal Cancer
Room: W194

4:15 p.m. – 5:30 p.m.
- Education Sessions
- EDU 08 – Practical Big Data Workshop: Key Recommendations and Findings for Bringing Big Data into Clinical Practice
Room: W187

4:15 p.m. – 5:30 p.m.
- International Session 06
- Clinical Implementation of Advanced Radiotherapy Techniques and Technologies in Resource-constrained Environments
Room: W196

4:15 p.m. – 5:30 p.m.
- Joint Session 02
- Novel Paradigms in the Management of Gliomas: Challenging Case-based ASTRO-SNO Joint Session
Room: W181

4:15 p.m. – 5:30 p.m.
- Mini-oral Scientific Sessions
- MO 09 – Biology 3 – Innovative Approaches to Improve Therapeutic Response
Room: W176
- MO 10 – Physics 4 – Outcome Analysis and Modeling
Room: W179

4:15 p.m. – 5:30 p.m.
- Oral Scientific Session
- SS 14 – Breast 2 – Toxicology and Biology
Room: W180
- SS 15 – Lung 3 – Locally Advanced Non-small Cell Lung Cancer
Room: W185
- SS 16 – Palliative 1
Room: W190

4:15 p.m. – 5:30 p.m.
- Panel Sessions
- Panel 08 – Post Review: Being the Bird that Catches the Worm
Room: W196
- Panel 09 – Is 70 the New 50? Using Radiation Therapy to Improve Outcomes in Older Patients with Lymphoma
Room: W184
- Panel 10 – Definitive and Post-operative Radiation Therapy for Basal and Squamous Cell Cancers of the Skin: An ASTRO Evidence-based Clinical Practice Guideline
Room: W183

ANNUAL MEETING JOURNEY MAPS

BACK TO 2019!
Be sure to pick up your Annual Meeting Journey Map at Registration or the Ask ASTRO booth located on Level 3. These handy guides will help you navigate the Annual Meeting. There are eight versions:
- Breast
- Prostate/GU
- Head and Neck
- Lung
- Innovative Technology/AI
- Combination Therapy
- First Timers
- International
Editor Roundtables

Stop by the Innovation Hub for an exciting opportunity to discuss timely issues facing ASTRO journals and scientific publishing at large! Editors of all three ASTRO journals will be available to share their perspectives on a wide range of topics. Look for the “Editor Roundtables” sign in the Innovation Hub seating area; all sessions last one hour and are not ticketed.

SUNDAY, SEPTEMBER 15

1:00 p.m.  Ideal characteristics of Red Journal article types
Sue Yom, MD, PhD, MAS

2:00 p.m.  How to respond to revision requests
Sue Yom, MD, PhD, MAS

MONDAY, SEPTEMBER 16

10:00 a.m.  Getting involved with ASTRO journals: Training, reviewing and other day-to-day operations
Lisa Braverman, MA, Kevin Jewett and Dawit Tegbaru

11:00 a.m.  How to review a scientific paper
W. Robert Lee, MD, MEd, MS, FASTRO

12:00 p.m.  The evolving world of scientific publishing: Open access, predatory journals and more
Anthony Zietman, MD, FASTRO

4:00 p.m.  Data discoverability for reproducible science: The good, the bad and the ugly
Robert Miller, MD, MBA, FASTRO, Andre Dekker, PhD, Isabel L. Jackson, PhD, and Dawit Tegbaru

TUESDAY, SEPTEMBER 17

11:45 a.m.  What to do when you receive a transfer recommendation
Robert Miller, MD, MBA, FASTRO

2:30 p.m.  Gender and diversity in academic research and publishing: Mentoring the next generation
Isabel L. Jackson, PhD, and Sue Yom, MD, PhD, MAS

ASTRO EXPERT THEATER SESSION

ASTRO Expert Theater: Code Development and Valuation Program
Tuesday, September 17, 2019
2:30 p.m. – 3:30 p.m.
Theater 2, Innovation Hub

Code Development and Valuation: What Radiation Oncology Industry Stakeholders Need to Know

Industry stakeholders frequently come to ASTRO with questions regarding coding and valuation for new technologies and services. This is an opportunity to hear from ASTRO’s experts about the process, what’s involved and why collaboration is critical.

ASTRO Experts:

• Amar Rewari, MD, MBA – Dr. Rewari serves as a member of ASTRO’s Code Development and Valuation Committee. He is also ASTRO’s RUC Alternate Advisor.

• Bryan Hull, Esq., MPH – Mr. Hull is ASTRO’s Assistant Director of Health Policy. He serves as the staff liaison to the Code Development and Valuation Committee as well as the key staff point person for ASTRO’s CPT and RUC activities.

Enjoy lunch at the redesigned ASTRO Bistro!

Located in the Innovation and Solution Showcase (Exhibit Hall), the ASTRO Bistro offers a variety of cuisines in a food court-style format.

Innovation and Solution Showcase, Back of Hall F1
Sunday, September 15 - Tuesday, September 17, 2019
11:00 a.m. - 2:30 p.m.

Purchase tickets on-site at the ASTRO Bistro. Your ASTRO Bistro lunch ticket includes cuisine of your choice, drink and dessert.

Individual Lunch Ticket (per person/day): $23

DAILY FOOD OFFERINGS:

Raisu Kare
Starter: (3) Slices of Fresh Sushi
Choice of:
Vegan Eggplant and Tofu Curry
Or
Chicken Curry
Both accompanied by Steamed Jasmine Rice and a Crispy Asian Slaw

Persian Bazar
Choice of:
Grilled Halal Chicken Kebab
Or
Baked Whitefish with Peppers and Sumac
Or
Vegan Garbanzo Bean Stew
All served with Yellow Rice, Tomato and Cucumber Salad and Pita Bread

Urban American Garden
Base Choice of:
Greens, Chilled Corn, Bean and Roast Pumpkin Salad
Or
Super Salad with Quinoa, Kale, Blueberries, Cranberries and Sunflower Seeds
Each served with a topping of Roast Tofu or Roast Chicken Breast

Ambrosia Panini Station
Prepared on hearty Whole Grain Bread and Stuffed with Sustainable or Organic Ingredients
Freshly Grilled Italian Panini Sandwich: Capicola, Genoa Salami, Ham, Tomato, Provolone Cheese and Olive Tapenade
Or
Tomato and Mozzarella Panini Sandwich: Fresh Mozzarella, Sliced Vine Ripened Tomatoes, Fresh Basil and Balsamic Vinaigrette
Each sandwich is served with Kettle Cooked Potato Chips and House-made Pasta Salad

Beverages
Assorted soft drinks, bottled water, iced tea and lemonade.

Desserts
Assorted desserts and fruit to choose from.
Welcome continued from page 1

Timmerman, MD, FASTRO, and Aval Rahimi, MD, MS, provide their perspective as they attempt to support the notion that this statement represents “reality,” while Anthony Zietman, MD, FASTRO, and Sophia Kamran, MD, will give us their perspective as to why this statement is a “myth.” This will be an Oxford Union-style debate and should be both educational and fun, particularly because the debate will be moderated by Ralph Weichselbaum, MD, a leader in oligometastasis research in our field. Following what will surely be an entertaining debate, you will be encouraged to choose from 13 Expanded Learning Sessions for an even deeper dive in the topic. During the lunch hours, attendees can continue the conversation at informal Table Talks, arranged in the rear of the exhibit hall. I want to give a special thanks to Felix Feng, MD, as well as Cristin Watson and her team at ASTRO for helping us construct this session into what I think will be an exciting, new way to engage our members.

It would not be an Annual Meeting without thought-provoking Keynote addresses. This year, we are featuring two Keynote Sessions building on the meeting’s theme of innovation and collaboration, welcoming experts on the topics of artificial intelligence (AI), deep learning and global health. On Monday, Keynote Address I will feature Suchi Saria, PhD, assistant professor at Johns Hopkins Whiting School of Engineering, speaking on clinical uses of AI and deep learning in improving care. David Magnus, PhD, professor of Medicine and Biomedical Ethics and professor of Pediatrics and Medicine at Stanford University, will discuss the unintended issues to patients and society that can result with AI and deep learning practices. Our field holds a unique place in medicine: the complicated care we deliver may significantly benefit from deep learning systems, but if we do not appropriately construct and deploy those systems, we could inadvertently compromise aspects of our care. This joint Keynote session should be very interesting, indeed.

On Tuesday, Keynote Address II features Vanessa Kerry, MD, MSc, founder of Seed Global Health. Dr. Kerry will be discussing the important links between health and the global economy, and the key role that educating the next generation of care professionals has in improving and sustaining health in low- and middle-income nations. She has clearly demonstrated that educating local caregivers, those with deep ties to a region, is what bolsters the infrastructure required to sustain health. I believe we have much to learn from Dr. Kerry and her work at Seed, and these lessons can be applied to underserved populations requiring radiation therapy in this country and beyond.

The science at this year’s meeting will leave you inspired. The Scientific Committee, led by Lisa Kachnic, MD, FASTRO, and Andrea Ng, MD, MPH, has gathered nearly 500 oral abstract presentations and 1,900 digital posters to create a robust scientific program, including the expanded Digital Poster Viewing Sessions and new Mini-oral Scientific Sessions, to provide more opportunities for attendees to learn about the latest research. New for this year, we are introducing the Cancer Breakthroughs session on Wednesday morning. You do not want to miss this groundbreaking session, which brings together four major oncology associations (ASCO, AACR, AAPM, RRS) to share the most important breakthroughs in cancer research from the year.

The next four days will be a journey. During this meeting, we come together to learn about the best ways to manage our patients, to network with innovative, collaborative colleagues, and to enjoy the company of both old and new friends. I hope each of you leave Chicago with a renewed drive and refreshed energy to provide the best care for our patients and to continue to build up the profile of our field as leaders in cancer care.

13 Expanded Learning Sessions and Table Talks

By Doriann Geller, ASTRO Communications

The 2019 ASTRO Annual Meeting’s theme, Innovate, Collaborate: Transform, informed many new opportunities at this year’s gathering, which seeks more interactive sessions, facilitated break-out sessions, and additional opportunities for professional engagement with colleagues. As part of the new format for the Presidential Symposium, Expanded Learning Sessions and Table Talks follow the general session and invite participants to further engage with the topic “Curing Metastatic Disease with Radiotherapy: Myth or Reality?” with thirteen sub-topics. We asked Cristin Watson, ASTRO assistant director of Education, to comment on these additional sessions and tell us what participants can expect.

Q. What are the Table Talks, and are they really held around a table?
CW: Table Talks are the follow-on from the Expanded Learning Sessions, and yes, they are held around tables in the back of the exhibit hall to encourage more personal interactions. Attendees will continue the conversation from their selected Expanded Learning Session or, if they prefer, join a new conversation. There will be time to share ideas and to connect with colleagues in a more intimate setting. We expect these talks to be highly interactive and embrace all facets of the health care community, including industry partners.

Q. What does ASTRO hope participants will take away from this new format?
CW: In our efforts to transform the Annual Meeting, we focused on how adults learn, which is generally more participatory than directive. With that in mind, we are holding more interactive sessions, where attendees are actively involved in learning and can step outside their comfort zone by attending sessions that are designed to be more impactful. We are hopeful that with these transformations to the Presidential Symposium, and the Annual Meeting in general, attendees will leave refreshed and renewed.

ASTRO hopes that participants will take away a sense of impact and value in collaborating with colleagues in a facilitative setting. We expect that debate, discussion and collaboration will enrich their experience, and we hope these facilitated break-out sessions set the stage for further discussion throughout the Annual Meeting and serve as conversation starters when they return home.

Refer to the Schedule at a Glance on page 3 to see the 13 Expanded Learning Sessions topics and room numbers.
Visit the Merck Booth and Learn More About KEYTRUDA

• Approved indications
• Resources for health care professionals
• The Merck Access Program
• KEY+YOU Patient Support Program
ASTRO Board approves further study of the needs of members in rural communities

By David Beyer, MD, FASTRO

ASTRO members practicing in rural areas often report challenges in providing care to rural patients, including reimbursement, supervision requirements and long-distance travel to regular treatments. In January 2019, the ASTRO Board of Directors asked me to lead a task force to study the needs of ASTRO members and radiation oncology facilities in rural communities to ensure patient access to care. The task force was comprised of members from the five ASTRO councils and included members from rural areas. Task force members were asked to provide written responses on a series of questions to inform the project. In addition, I solicited input on the initiative from the ASTRO membership via the ROhub. Combined, ASTRO received more than 25 pages of feedback.

Five themes emerged as priorities: Peer Review and Tumor Boards; Education and Training; Radiation Therapy Telemedicine; and Supervision.

Workgroups were formed for each topic area. The members of the workgroups spent several months identifying key issues and developing draft recommendations, which were presented to the ASTRO Board of Directors Friday, September 13.

First and foremost, the task force recognized that there was still a lot of work to do in order to implement the recommendations and to examine other issues and possible recommendations to support rural ASTRO members and patient access to care. Therefore, we recommended that the Board approve extending the Rural Task Force for at least one year.

The Board was very receptive to the recommendations and approved the continuation of the Task Force for another year. The column on the right provides a brief outline of the recommendations. The Board directed the Task Force to continue their work and to develop a proposal including a budget projection for each of the recommendations. These proposals will be brought to the Board throughout the year. ASTRO members will be kept apprised of the work of the Task Force through ASTROgram and the ROhub Super Forum.

**SHORT TERM**
- Extend Rural Task Force; Appoint Chair/Vice-chair.
- Advocate to expand 50-mile restriction on transportation support.
- Discuss value of rural practice among residents with SCAROP, ADROP and ARRO.
- Use data to define rural in the context of radiation oncology supervision.
- Create Rural Resource page on ASTRO.org and highlight availability of external peer review programs.

**MEDIUM TERM**
- Develop Peer Review Match program.
- Task group to explore feasibility of radiation oncology telemedicine services.
- Develop comprehensive educational plan for rural practices.
- Expand rural patient resources on RTanswers.
- Enhance rural connections through ROhub and consider Project Echo collaboration.
- Coordinate rural education efforts with partner organizations.

**LONG TERM**
- Support patient navigator legislation and payment.
- Using definition of rural, consider supervision exceptions.
- Promote rural clinic educational content and options.

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**UT Southwestern, Radiation Oncology**

**Come see us at ASTRO, Booth #4828!**

The Department of Radiation Oncology, accredited by the American College of Radiology and part of UT Southwestern Harold C. Simmons Comprehensive Cancer Center, is committed to providing comprehensive and advanced educational programs to train the next generation of medical professionals so they will be capable of providing exceptional care to cancer patients.

Our training programs include:
- Residency programs for both ACGME-accredited clinical radiation oncology and CAMPEP-accredited medical physics radiation oncology.
- Biomedical Engineering Graduate Program.
- Molecular Radiation Biology Graduate Program.
- Postdoctoral Medical Physics Certificate Program.
- Radiation Therapy Training Program.
- SBRT Fellowship (approved by the Texas Medical Board).
- Clinical, Medical Physicist, and Student Observerships.
- Introduction to Radiation Oncology.
- Radiation Oncology Elective.

We also offer short-term training workshops and CME programs to professionals, including medical students and residents.
- Stereotactic Body Radiotherapy (SBRT) Program.
- CyberKnife Training Program.
- Gamma Knife Training Program.

A limited number of scholarships will be available for the short-term workshops.

For more information, please visit utsouthwestern.edu/rad-onc-education.
Clinical Trials session to answer critical radiation oncology research questions

By Sabrina Joseph, PhD, ASTRO Scientific Affairs

Today’s Clinical Trials session will showcase updates from five pivotal clinical trials. These studies delve into cancer treatment approaches for a variety of disease sites and seek to answer critical research questions to help improve patient care and outcomes.

The first presentation will discuss a single institutional randomized Phase II clinical trial comparing proton beam therapy (PBT) to intensity-modulated radiation therapy in terms of total toxicity burden (TTB) and progression-free survival (PFS) in esophageal cancer (EC) patients. While PBT is recognized for its ability to spare critical organs in EC patients treated with chemoradiation, the clinical benefit remains largely unstudied. This presentation will report on the TTB and PFS outcomes of this study.

The second presentation will provide finalized results from an international, randomized Phase III trial for PET-guided treatment of early-stage favorable Hodgkin Lymphoma (HL) from the German Hodgkin Study group. A widely accepted standard of care for HL is a combined modality treatment (CMT) of ABVD chemotherapy (2xABVD) followed by involved-field radiation therapy (IFRT). This study incorporated FDG-PET examination to further individualize patient treatment, where only patients with a positive PET after 2xABVD received subsequent IFRT in the experimental arm. All patients in the standard arm received CMT and subsequent radiotherapy. By omitting IFRT treatments based on PET-guided analyses, the aim was to determine if treatment toxicity can be reduced without affecting progression-free survival outcomes. The researchers will share results on the prognostic impact of FDG-PET to identify risk groups among patients receiving CMT.

The third session will provide updates from the PORTEC-3 trial that investigated the benefit of adjuvant chemotherapy during and after radiation therapy RT compared with pelvic radiation alone for women with high risk endometrial cancer (HREC). Patients were enrolled between November 2006 and December 2013 and randomized 1:1 to receive either chemoradiotherapy or RT treatments alone. As women with HREC are at increased risk of recurrence, patterns of recurrence and survival will be among the outcomes described today.

For children with high-risk neuroblastoma, locoregional relapse remains a significant contributor to treatment failure. In the presentation of the fourth study (ANBL0532), researchers from the Children’s Oncology Group (COG) will present results examining the effects of increasing the local dose of radiation to the residual primary tumor for patients (with less than a gross total resection) on overall survival, event-free survival and cumulative incidence of local progression. The data will be compared to the historical COG A3973 cohort, in which patients received RT without a boost.

Lastly, the primary outcomes of a Phase II randomized trial of observation versus stereotactic ablative radiation for oligometastatic prostate cancer (ORIOLE) will be presented. There is mounting evidence supporting complete metastatic ablation for oligometastatic cancer but the relevance of this approach to oligometastatic prostate cancer (OMPC) remains under investigation. This presentation will help shed light on this research gap for men with OMPC.

Further details and the results from these trials will be published in Tuesday morning’s Digital Daily email, delivered directly to your inbox and available online at www.astro.org.
and produce public education. RO-HAC develops regular aggregate reports that include multiple, deidentified case examples and possible mitigation strategies focused on various themes.

The latest RO-HAC report includes seven cases on vertebral body alignment, HDR treatment and patient identification. Additionally, RO-ILS releases stand-alone case summaries that examine an event and provide feedback and suggestions from RO-HAC. Recently published, RO-ILS Case Study 03 describes how a typographical error resulted in the planning target volume being assigned a density of zero, an error not discovered until after the first fraction. From the RO-HAC perspective, Adam Dicker, MD, PhD, FASTRO, professor and chair of Radiation Oncology at Thomas Jefferson University, exemplified the global benefits of the program when he said, “By leveraging the shared learning experience with RO-ILS, we’ll continue to make patient safety a high priority.”

One of the goals of RO-ILS is to positively impact a practice’s culture, a driver of safety. For example, all radiation oncology staff can anonymously report an event to internal reviewers, which can help build a culture of safety. This reinforces the idea that all members of the team are responsible for patient safety and quality care. Samantha Hedrick, PhD, DABR, from Provision Center for Proton Therapy in Knoxville, Tennessee, says, “RO-ILS empowers our staff and provides them a way to make their voice heard and change their working environment. It’s improved staff morale and patient safety.”

RO-ILS participants reap numerous other benefits from the program. RO-ILS can help satisfy requirements for accreditation, physician and physicist maintenance of certification and Medicare’s Merit-based Incentive Payment System (MIPS).

Thanks to the generous financial sponsorship of ASTRO and AAPM and support from Varian, ASRT, AAMD and Sun Nuclear Corporation, participation in RO-ILS is free. Join the 500 facilities enrolled in RO-ILS today! To learn more about the program, visit www.astro.org/roils or email roils@astro.org.

References:

ASTRO members are talking about why they chose APEX accreditation

Patients want assurances that they are receiving care from a facility that prioritizes safety. Achieving APEX® accreditation communicates your facility’s commitment to safe and high-quality patient care. APEX was created by your peers and, because everyone plays a role in delivering quality radiation treatment, it focuses on the entire radiation oncology team. The accreditation is valid for a four-year period to allow time for process improvement and to evaluate the impact on your facility’s safety processes and patient care. The APEX program requires effort and a time commitment from your team, but the benefits in the end are worth it. Don’t just take our word for it, here’s what your peers have to say about their APEX experience:

APEX is far more comprehensive, rigorous and radiation therapy-specific than any other accreditation program out there. – Suneel Nagda, MD, University of Pennsylvania

It is a great program, and the preparation resulted in a great deal of quality improvement at our center. – Jean Wright, MD, Johns Hopkins

The APEX accreditation process provided a detailed program through which our practice was able to review our processes, and create, review and revise our policies and procedures to ensure our practice is in alignment with the highest standards of radiation oncology practice. The accreditation process was relatively easy to follow and practices undergoing review will find the feedback and assistance provided by the APEX staff invaluable. I highly recommend ASTRO’s APEX accreditation program. – Youssef Charara, PhD, Virginia Cancer Specialists

As quality becomes an increasingly important part of the practice and culture of medicine, APEX provides a mechanism to measure it [quality] and continuously improve our practice. – Arthur Liu, MD, PhD, UChicago

We are quite happy with the program. It focused on the more important details of running a modern and safe radiation practice. – Neil Das Gupta, MD, Edward Elmhurst Hospital

We selected APEX for our practice accreditation because we viewed their accreditation structure as a vehicle to improve our practice quality. The process has required us to assess and clarify our workflow, policies and procedures. Meeting the APEX standards has been a valuable process for every aspect of our workflow and improved our quality and coordination of care. – Geraldine Jacobson, MD, MPH, MBA, FASTRO, West Virginia University

APEX accreditation reaffirms to our patients, their families and friends that Scripps is committed to consistently providing safe, high quality radiation therapy services. The APEX program enabled us to review our policies and procedures by conducting a self-assessment to reflect on our radiation oncology practice that focuses on patient-centered care. Not only did the APEX accreditation highlight our strengths as a department, but it brought together all the disciplines of our team to work together to bring our mission to life. – Prabhakar Trivedi, MD, FASTRO, Scripps MD Anderson Cancer Center

APEx is now certified as a qualified accreditation body by the New York City Department of Health and Mental Hygiene’s Office of Radiological Health.

Visit APEX during Office Hours and ask about the ASTRO discount.
The ROI is ready to run, celebrate and recognize donors
By Janet Hedrick, ROI

It’s not too late to register for the Running Strong 5K Run for the Future to Benefit the Radiation Oncology Institute (ROI). The race will be held Monday at 6:44 a.m. on the Lakefront Trail. Buses, leaving at 6:10 a.m., will provide transportation from the hotels to the starting point at the Chicago Fallen Firefighter and Paramedic Memorial. You may register for the race at the Radiation Business Solutions (RBS) booth (#4232) in the Innovation and Solution Showcase on Sunday, September 15, between 10:00 a.m. and 5:00 p.m. The cost for registration is $50. For more details, stop by the RBS booth. The annual event is generously hosted by RBS so that every dollar from sponsorships, registration fees and donations go directly to the ROI.

On Sunday night, major donors to the ROI will gather for the second annual “Celebration of Giving.” The reception will provide an opportunity for donors who are members of the Founders’ Circle, President’s Circle and Legacy Circle to come together and meet the researchers they are supporting through their generosity. At the event, the 2019 Publication Award will be presented to David Palma, MD, PhD, of the London Health Sciences Centre for his article, “Stereotactic Ablative Radiotherapy Versus Standard of Care Palliative Treatment in Patients with Oligometastatic Cancers (SABR-COMET): A Randomised Phase 2, Open-label Trial,” which appeared in The Lancet. James E. Bates, MD, of the University of Florida and Joshua Rodriguez-Lopez, MD, of the University of Pittsburgh Medical Center will also be recognized for their manuscripts that received honorable mentions in the competition.

You can stop by the ROI booth (#808) in the Innovation and Solution Showcase to meet researchers whose work is supported by the ROI or to meet a trustee of the ROI, see the names of 2019 donors and read quotes from donors and researchers. While you are at the booth, you can make your 2019 contribution to the ROI to support research in radiation oncology. Make your gift, ring the bell and write your name on the chalkboard.

Current clinical cases and timely topics discussed at Practical Radiation Oncology (PRO) program
By Lisa Braverman, MA, ASTRO Journals

This year’s Practical Radiation Oncology (PRO) program, back by popular demand after an extremely successful debut in 2018, got off to a strong start Saturday. Nearly 400 participants registered for the two-day event, designed specifically for community practice radiation oncologists. Disease site reviews, case-based discussions, a coding update and a scientific overview are provided to participants.

Yesterday’s schedule was as impressive as it was busy. The day began with a session about current clinical cases in prostate cancer, followed by a case-based discussion of hot topics in lung cancer treatment and clinical case sessions on breast cancer, gynecologic oncology, radiosurgery for brain metastases and gastrointestinal oncology. Anand Shrivani, MD, concluded the day’s speaking events by providing an annual scientific review of ASTRO 2019. Attendees enjoyed an evening networking session at the end of the productive, informative day.

Tom Boikey, MD, MMM, chair of the prostate and head and neck cancers sessions, said, “I am very proud of the audience’s response and engagement to the first day of the PRO program. The presenters spent a lot of time selecting cases that would highlight current management issues. It was awesome to have so many questions from the diverse attendees and hear how our expert presenters approach these clinical issues. I am looking forward to our head and neck session tomorrow [Sunday] where we will discuss practical issues ranging from mucositis management to patient selection for reirradiation.”

Najeeb Mohideen, MD, FASTRO, said of yesterday’s program, “The case-based format was a big hit. The participants loved the variety of cases presented and the fact that the experts were able to keep it evidence based, highlight practical aspects of management and discuss clinical dilemmas that they face in the clinic. The feedback was extremely positive and I’m looking forward to today’s sessions.”

Today, PRO participants are gearing up for another engaging range of sessions, including a set of 25 case-based presentations focusing on palliative radiation oncology. The final two sessions of the program will focus on current cases in head and neck cancer, and a socioeconomic update centered around the recently released Radiation Oncology Alternative Payment Model (RO-APM), which will be presented by ASTRO Director of Health Policy Anne Hubbard, MBA. Ms. Hubbard will share details regarding the long-awaited RO-APM that was issued by the Center for Medicare and Medicaid Innovation this past July. “This afternoon, I’ll cover ASTRO’s response to the Agency’s proposed payment model, including recommended refinements to the mandatory nature of the model, the payment methodology and the reporting burdens associated with the proposal,” said Ms. Hubbard.

This innovative program remains very helpful for participants, as it nimbly delivers the latest updates in cancer care to those who devote their careers to treating patients.
Treatment with concurrent CRT is given to patients with curative intent and offers patients additional treatment options in the unresectable Stage 3 NSCLC setting.

Rates of 5-year survival with concurrent CRT have doubled over the past 10 years:

2010
Concurrent CRT shows survival benefit compared with sequential CRT.*

≈15%

2017
Concurrent CRT with standard-dose radiation†

≈32%

More can be done for these patients after CRT

---

References:

*This meta-analysis of survival in patients with unresectable Stage III NSCLC was based on 6 trials with 1205 patients and 1068 deaths.
†Compared with high-dose radiation in patients with Stage III NSCLC.
Visit AZIOinPractice.com or the AstraZeneca booth for:

Expert Video Panels
Stay informed about advances in the treatment of Stage 3 NSCLC with round-table discussions featuring experts in the field.

The Latest in Stage 3 NSCLC
Learn about challenges in treating Stage 3 NSCLC and uncover best practices when treating Stage 3 NSCLC with concurrent CRT.

Immunono-Oncology Information
For your patients who complete concurrent CRT, consolidation immunotherapy may be an option. Discover the role of immunotherapy in Stage 3 NSCLC, including recommendations from leading guidelines.

Scan the QR code with your phone’s camera to visit AZIOinPractice.com
Considering ASTRO’s perspective on the proposed CMS Radiation Oncology APM

This article was originally published by the Journal of Clinical Pathways and adapted for ASTRO use.

ASTRO's Director of Health Policy, Anne Hubbard, MBA, spoke with the Journal of Clinical Pathways' Zach Bessette regarding ASTRO's response to the mandatory alternative payment model (APM) for radiation oncology laid out by the Centers for Medicare and Medicaid Services (CMS) that is set to begin as early as January 2020.

To begin, what is ASTRO’s overall stance on CMS’ proposed APM for radiation oncology?

AH: ASTRO is glad the model has been officially made public. We have spent quite a bit of time over the last several years working on the development of a model and shared a proposed radiation oncology APM concept paper with CMMI [CMS' Center for Medicare and Medicaid Innovation] back in May 2017. We have known that CMS has been working on a model for quite some time and we now have the chance to dissect the content of the model structure in its entirety to fully understand its impact on the field.

Overall, ASTRO is enthusiastic about working with CMS. There are some key areas that ASTRO and the radiation oncology community will need to flesh out, namely the mandatory aspect. It is concerning that the proposed rule includes a requirement that 40% of episodes across the U.S. will be included. This percentage seems unnecessarily high, especially for a model that is completely new. ASTRO will be pushing to make the model voluntary.

Is there any indication of a timeline for which the final details will be announced by CMS before the practices are selected?

AH: We can expect a final rule sometime in November. The challenge with a November date is if CMS decides to move forward with a start date of January 1, 2020, that gives us a very limited window to help our members prepare to participate. I am hopeful that the agency considers a later start date — perhaps the April-November window to help our members prepare.

Aside from required participation on the part of some radiation oncology groups, what are some of the other large concerns that ASTRO has with the proposed APM?

AH: The other aspect that ASTRO is concerned with is the discount rates. The payment methodology splits the professional component (PC) rate from the technical component (TC) rate, and then establishes a discount on those rates. The PC discount is set at 4% percent and the TC discount is set at 5%. That is one area [discounts] where ASTRO needs to understand CMS' position and consider an alternate discount rate.

The other concern ASTRO has is related to the 2% withhold for incomplete episodes, as well as a 2% withhold for quality measures performance and a 1% withhold for patients' experience with care. All those discounts and withholdings combined could have a serious impact on practice cash flow, potentially putting practices in financial jeopardy unnecessarily. We want to ensure that radiation oncologists have an opportunity to successfully participate in an alternative payment model that stabilizes payments and improves patient care, not one that creates financial instability.

Yet another aspect that ASTRO is concerned about is the fact that the model proposes to waive the 5% Advanced APM bonus from TC payments. MACRA establishes a 5% bonus on those services that are part of an APM. It includes both the professional component and technical component services associated with physician fee schedule payments. CMS has proposed applying the 5% to the professional component and not the technical component, because it cannot apply the 5% bonus to any technical component payments associated with HOPPS. The Agency is concerned that if it just applied the 5% bonus to the technical component related to freestanding services, there may be a shift in site of service from the hospital setting to the freestanding setting.

There has to be a way to recognize the bonus piece associated with the technical component because radiation oncology is a very capital investment-heavy type of field. This is a field where you need a lot of capital upfront in order to operate a facility as well as to continue operations when patients are being treated. Not being able to secure that 5% to continue to invest in technology and invest in personnel could be a significant challenge for practices.

How are practices reacting to the news of this APM? Now that there is a plan for action, is there a sense of worry or contentment among practices?

AH: The reaction has been somewhat of a mixed bag. Some practices are very worried, others are more optimistic. Overall, my sense is that ASTRO members fully recognize that APMs are the direction of health care in the U.S. for the immediate future. Collectively, we are making the transition from pay per service to value-based payment, and radiation oncology is undoubtedly going to be a proponent of that.

Are there any other important points or parting messages you would like to make at this time?

AH: ASTRO will be conducting additional data analysis to make sure that the national case rates are appropriate. Nonetheless, we are looking forward to engaging with CMS and ensuring that this model is ultimately designed for radiation oncologists to be successful and continue to care for patients the way they see fit based on appropriate guidelines and use of radiation therapy. There is still a way to go, but we are certainly heading in the right direction.

Learn more about the RO-APM during Panel 02 - Quality Payment Program and the Radiation Oncology Alternative Payment Model, being held today, 1:15 p.m. - 2:30 p.m., in room W181.

ASTRO Coding and Coverage Seminar
December 6-7, 2019
ASTRO Headquarters · Arlington, Virginia

Register now!
www.astro.org/codingseminar
ASTRO Chair testifies before Congress on restrictive prior authorization practices

By Margarita Valdez, ASTRO Congressional Relations

On Wednesday, September 11, ASTRO Chair Paul Harari, MD, FASTRO, testified before the U.S. House Committee on Small Business about issues associated with overutilization of prior authorization. The hearing, titled “Utilization Management: Barriers to Care and Burdens on Small Medical Practice,” provided a key opportunity to highlight the barriers to care for cancer patients and the opportunities to curb unnecessary delays caused by prior authorization.

Over the past year, ASTRO has ramped up efforts with members of Congress to use their legislative authority to help rein in overzealous prior authorization practices. In April, ASTRO members from across the country convened in Washington for ASTRO’s 16th annual Advocacy Day to support policies that safeguard cancer patients’ access to high-quality, value-based health care. Radiation oncologists provided House and Senate lawmakers front-line stories about obstacles they experience in their efforts to deliver life-saving radiation therapies to cancer patients. In particular, ASTRO members urged congressional leaders to remove restrictive prior authorization requirements that unnecessarily delay patient access to cancer treatments. In a 2018 ASTRO member survey, radiation oncologists named prior authorization as the greatest challenge facing the field. The burden was especially prominent among private practitioners in community-based settings, where the majority of cancer patients receive their care.

In June, ASTRO applauded the introduction of The Improving Seniors’ Timely Access to Care Act of 2019 (H.R. 3107), introduced by Rep. Suzan DelBene (D-Wash.), Rep. Mike Kelly (R-Pa.), Rep. Roger Marshall, MD (R-Kan.) and Rep. Ami Bera, MD (D-Calif.). It was clear that congressional leaders had heard the concerns voiced by ASTRO members during Advocacy Day. This bipartisan legislation would facilitate electronic prior authorization, improve transparency for beneficiaries and providers alike and increase Centers for Medicare and Medicaid Services (CMS) oversight on how Medicare Advantage plans use prior authorization. While there are still more reforms needed, this bipartisan legislation is an important first step toward reforming prior authorization practices.

To date, H.R. 3107 has more than 30 bipartisan co-sponsors in the House.

In Wednesday’s congressional hearing, Dr. Harari testified that 93% of radiation oncologists said their patients were being kept from life-saving treatments due to delays caused by prior authorization. These delays cause added stress and anxiety to patients already concerned about their health and well-being. Since the focus of the hearing was on small medical practices, Dr. Harari also shared the results of a recent ASTRO survey that showed patients treated at community-based, private practices experience longer delays than those seen at academic centers. Additionally, radiation oncologists in private practice are almost twice as likely to spend more than 10% of their day focused on prior authorization compared to physicians at academic centers. Overall, radiation oncology cancer patients have been particularly hard hit by prior authorization’s unnecessary burden and interference in care decisions. Dr. Harari’s testimony reflected these burdens felt by patients and practitioners alike.

For information on how you can help rein in restrictive prior authorization practices, visit the ASTRO PAC Pod located on the Central Concourse on Level 3, near the Ask ASTRO booth.
Research spotlight: ASTRO’s Research Award winners

For the past decade, ASTRO has offered seed and early career development awards in partnership with external organizations to outstanding researchers in the radiation oncology field. The goal of our Research Grants Program is to help lay a foundation for these researchers’ scientific careers and provide funding for research projects that could positively impact patient care and outcomes. On Tuesday, September 17, from 2:45 p.m. to 4:00 p.m., a special session will be held to showcase the research of prior ASTRO grant awardees and to recognize the 2019 grant recipients. A brief summary of our 2019 awardees is included below.

ASTRO-BCRF Career Development Award to End Breast Cancer:
David Soto-Pantoja, PhD, is an assistant professor at Wake Forest University Health Sciences. He received his PhD from Wake Forest University and completed postdoctoral training at the NCI. His research focuses on how immune signaling pathways can be controlled to elicit anti-tumor responses. Previously he has demonstrated that drugs that block the CD47 receptor inhibit tumor growth alone or in combination with radiotherapy in animal cancer models and targeting CD47 may reduce breast cancer tumor growth and metastasis. This work prompted his proposal to further explore whether anti-CD47 immunotherapy could be used for the treatment of brain metastasis due to breast cancer.

ASTRO-PCF Career Development Award to End Prostate Cancer:
Amar Kishan, MD, is an assistant professor in the Department of Radiation Oncology at the David Geffen School of Medicine at UCLA. He earned his medical degree from Harvard Medical School and completed an internship at Scripps Mercy Hospital San Diego and a residency at UCLA. His research focuses on optimizing understanding of high-risk, localized prostate cancer. Specifically, he hopes to identify transcriptomic or germline biomarkers that may improve prognoses and potentially help guide treatment intensification.

ASTRO-American Association of Physicists in Medicine (AAPM) Physics Resident/Postdoctoral Fellow Seed Grant:
Siamak Nejad-Davarani, PhD, is a scientist within the Radiation Oncology Department at Henry Ford Health System. He obtained his PhD in biomedical imaging and has extensive research experience in medical imaging and image processing, mathematical modeling and MRI pulse sequence programming. He will apply this background in his awarded project to develop a novel MR-guided adaptive radiation therapy framework for effective treatment of glioblastoma multiforme physiological tumor changes based on tumor responses to treatment.

ASTRO Residents/Fellows in Radiation Oncology Seed Grant:
Jason Beckta, MD, PhD, is a PGY-3 resident in radiation oncology at Yale-New Haven Hospital on the B. Leonard Holman Pathway of the American Board of Radiology. He obtained his MD and PhD from the Virginia Commonwealth University investigating DNA damage responses. At Yale he will expand this experience to the study of novel treatments for GBM. Clinical data have shown that inhibition of DNA repair with small molecule inhibitors is a viable method for sensitizing GBM tumors to DNA damaging agents. However, the current delivery methods are met with impediments to the efficacy of this approach. His proposal aims to encapsulate DNA repair inhibitors into nanoparticles and then characterize and evaluate their function as a novel approach for targeted glioma chemo sensitization.

ASTRO Residents/Fellows in Radiation Oncology Seed Grant:
Alexander Bagley, MD, PhD, is a PGY-3 clinical resident in the Department of Radiation Oncology at the University of Texas MD Anderson Cancer Center. He initially explored the nanotechnology and oncology fields during his MD and PhD training in biophysics at Harvard, focusing on developing novel nanomaterials for cancer detection, imaging and drug delivery. Currently, he is actively exploring how radiosensitizing nanomaterials can enhance the efficacy of radiation therapy and improve responses to immunotherapies. The goal of his project is to develop a nanoparticle-based treatment strategy for locally advanced head and neck cancer.

RESEARCH SPOTLIGHT
Attend this special session highlighting the research of prior and current ASTRO grant award winners.

September 17, from 2:45 p.m. to 4:00 p.m.
Room W175

Save the date for ASTRO’s 62nd Annual Meeting in Miami, October 25-28, 2020, where attendees will explore the theme, The Global Clinic: Cancer Care without Boundaries.

What’s New for ASTRO 2020:
• Innovation Hub Presentation and Demonstration Stage.
• Expanded Wellness Program.
• Shorter and more interactive sessions.
• More informal networking and mentoring opportunities.

Visit www.astro.org/am2020 to view the video and learn more!
STAGE 3 NSCLC IS TREATED WITH CURATIVE INTENT

Learn more at the AstraZeneca booth

Congratulations to the 2019 Abstract Award winners!

**International Development Abstract Award**
This grant is designed to foster continuing medical education, assist in career development and help to establish relationships between international radiation oncologists and leading ASTRO members who may serve as scientific mentors to each recipient. One award of $4,000 will be used to support a radiation oncologist in a developing country to travel to the ASTRO Annual Meeting and to spend additional time at a comprehensive cancer center within the United States. The award includes a certificate of recognition and a complimentary registration to the Annual Meeting. It is awarded to the highest-rated abstract submitted by those who applied and provided their CV and letter of recommendation.

**Resident Clinical/Basic Science Award**
This award is designed to promote clinical research by young scientists. The award is granted to the top three resident authors of significant abstracts in biology, clinical practice and physics. The award includes a $1,500 honorarium, a trophy of recognition and complimentary registration to the Annual Meeting.

**Basic/Translational Science Award**
This award is designed to encourage participation in the ASTRO Annual Meeting by basic and translational scientists. Up to 12 awards are given to applicants having the highest-rated abstracts in clinical, biology or physics categories. Four awards are given in each category. Winners are a mix of junior and senior level investigators. The award includes a $1,000 honorarium, a certificate of recognition and a complimentary registration to the Annual Meeting.

**Resident Poster Viewing Recognition Award**
This award recognizes the highest-rated abstracts submitted by residents and accepted as a digital poster presenter or as a mini-oral session presenter. Winners will receive a trophy. The award is granted to the top three resident authors of significant abstracts in each category: biology, clinical practice and physics.

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**Mini-oral Session 14 – Breast 3**
Tuesday, September 17, 2019
3:00 p.m. – 3:05 p.m., Room W186

**Abstract Title:**
A Phase II Randomized Study of Concurrent vs. Sequential Letrozole with Adjuvant Hypo-fractionated Radiotherapy: Long Term Toxicity and Survival Outcomes

**Mini-oral Session 14 – Breast 3**
Tuesday, September 17, 2019
2:45 p.m. - 2:55 p.m., Room W196

**Abstract Title:**
Induction Radiation Prior to Commercial Chimeric Antigen Receptor T-Cell Therapy for Relapsed/Refractory Non-Hodgkin Lymphoma

**Mini-oral Session 14 – Breast 3**
Tuesday, September 17, 2019
3:00 p.m. – 3:05 p.m., Room W186

**Abstract Title:**
Imaging-driven Biophysical Model for the Differentiation of Tumor Progression from Radiation Necrosis

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**Scientific Session 24 – Hematologic 2**
Tuesday, September 17, 2019
2:45 p.m. - 2:55 p.m., Room W196

**Abstract Title:**
Persistence of Circulating Tumor Cells as a Biomarker for Recurrent Disease Following Stereotactic Body Radiation Therapy for Stage I Non-small Cell Lung Cancer

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**Scientific Session 40 – Biology 8**
Wednesday, September 18, 2019
3:25 p.m. - 3:35 p.m., Room W179

**Abstract Title:**
Persistence of Circulating Tumor Cells as a Biomarker for Recurrent Disease Following Stereotactic Body Radiation Therapy for Stage I Non-small Cell Lung Cancer

**Scientific Session 10 – Physics 3, Best of Physics**
Monday, September 16, 2019
11:15 a.m. - 11:25 a.m., Room W187

**Abstract Title:**
Imaging-driven Biophysical Model for the Differentiation of Tumor Progression from Radiation Necrosis

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**Resident Recognition Awards**
This award recognizes the highest-rated abstracts submitted by residents and accepted as a digital poster presenter or as a mini-oral session presenter. Winners will receive a trophy. The award is granted to the top three resident authors of significant abstracts in each category: biology, clinical practice and physics.

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Imaging-driven Biophysical Model for the Differentiation of Tumor Progression from Radiation Necrosis
Our heartfelt congratulations on a well-deserved honor.

Our own Dr. Silvia Formenti is awarded the ASTRO Gold Medal

NewYork-Presbyterian Hospital is proud and thankful to have Dr. Silvia Formenti as a colleague, a leader, and an inspiration. Dr. Formenti, Radiation Oncologist in Chief at NewYork-Presbyterian/Weill Cornell Medical Center, Chairman of the Department of Radiation Oncology at Weill Cornell Medicine, and Associate Director of the Meyer Cancer Center at Weill Cornell Medicine, is recognized around the world as an expert in the use of radiation therapy for cancer treatment. Her work demonstrating the efficacy of combining radiotherapy with immunotherapy has opened an entirely new field of application for radiation as an adjuvant to immunotherapy. Contributions by pioneers like Dr. Formenti have helped put NewYork-Presbyterian Hospital at the forefront of cancer innovation.

Powered by the work of doctors at Columbia University Vagelos College of Physicians and Surgeons and Weill Cornell Medicine, we are one of the nation’s leading centers for cancer research and care. The physicians and medical professionals of NewYork-Presbyterian Hospital, Columbia University Vagelos College of Physicians and Surgeons, and Weill Cornell Medicine are dedicated to providing their patients with the latest advances available in oncology treatment and care.

Learn more about our innovations in oncology at nyp.org/advances-oncology

NewYork-Presbyterian
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INDUSTRY SATELLITE SYMPOSIA

SUNDAY, SEPTEMBER 15, 2019
6:00 p.m. – 8:00 p.m. | Symposium

Consensus or Controversy? – Radiation and Medical Oncology Investigator Perspectives on the Role of Immune Checkpoint Inhibition in the Management of Patients with Locally Advanced Non-small Cell Lung Cancer

Venue Location: Hyatt Regency McCormick Place, Regency Ballroom CDE – Dinner will be provided.

Accreditation: Research To Practice is accredited by the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education. The Medical Learning Institute Inc. is accredited by the ACCME to provide continuing medical education for physicians.

CME Credits: Research To Practice designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity is supported by an educational grant from AstraZeneca.

SUNDAY, SEPTEMBER 15, 2019
6:30 p.m. – 8:00 p.m. | Symposium

Novolus Circle Symposium – Radiosurgical Innovations for Treatment of Brain Metastases

Venue Location: Hyatt Regency McCormick Place, Regency Ballroom AB – Food and beverage will be served.

Accreditation: 0 CME

Target Audience: This meeting is intended for radiation oncologist, medical oncologist, and other healthcare professionals involved in the treatment of patients with brain metastases.

Program Description: The Novolus Circle welcomes attendees to join an evening reception and panel discussion at the American Society for Radiation Oncology Annual Meeting. This meeting will feature distinguished clinicians who will present the latest radiosurgical innovations, best practices and personal experiences in the treatment of brain metastases.

This activity is supported by BrainLab.

MONDAY, SEPTEMBER 16, 2019
5:45 p.m. – 6:15 p.m | Registration and Dinner
6:15 p.m. – 7:45 p.m | Symposium

Readily the Modern Radiation Oncology Practice for Incorporation of a Fourth Modality in Cancer Treatment: Understanding the Science, Evidence and Clinical Application Across a Range of Solid Malignancies

Venue Location: Hyatt Regency McCormick Place, Grant Park Room – Dinner will be provided.

Accreditation: This activity will be planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education. The Medical Learning Institute Inc. is accredited by the ACCME to provide continuing medical education for physicians.

CME Credits: The Medical Learning Institute, Inc. designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity is supported by an independent educational grant from Novocure.

This CME activity is jointly provided by Medical Learning Institute, Inc. and PVI, PeerView Institute for Medical Education.

MONDAY, SEPTEMBER 16, 2019
5:45 p.m. – 6:15 p.m | Registration and Dinner
6:15 p.m. – 7:45 p.m | Symposium

NSCLC Tumor Board: Navigating the Evolving Role of Immunotherapy in Multimodal Management of Locally Advanced and Early-stage Lung Cancer

Venue Location: Hyatt Regency McCormick Place, Regency Ballroom CDE – Dinner will be provided.

Accreditation: This activity will be planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education. The Medical Learning Institute Inc. is accredited by the ACCME to provide continuing medical education for physicians.

CME Credits: The Medical Learning Institute, Inc. designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

To register or for more information, please visit www.PeerView.com/radNSCLC19

This activity is supported by an independent educational grant from AstraZeneca.

This CME/MOC activity is jointly provided by Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education.

TUESDAY, SEPTEMBER 17, 2019
6:15 p.m. – 6:45 p.m | Registration and Dinner
6:45 p.m. – 8:15 p.m | Symposium

Challenges, Controversies and Opportunities in the Management of EGFR-mutant Lung Cancer with Central Nervous System Metastases: Working Together to Improve Patient Outcomes

Venue Location: Hyatt Regency McCormick Place, Regency Ballroom CDE – Dinner will be provided.

Accreditation: This activity will be planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education. The Medical Learning Institute Inc. is accredited by the ACCME to provide continuing medical education for physicians.

CME Credits: The Medical Learning Institute, Inc. designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity is supported by an independent educational grant from AstraZeneca.

This CME/MOC activity is jointly provided by Medical Learning Institute Inc. and PVI, PeerView Institute for Medical Education.

ASTRO has reviewed and approved these symposia for presentation. These symposia represent the content and views of the supporters and are not part of the official ASTRO Annual Meeting.

INDUSTRY-EXPERT THEATERS

Sunday, September 15
Theater 1, Innovation Hub
Detection and Localizing Recurrent Prostate Cancer with Axumin® (fluorodeoxyglucose F 18)
12:15 p.m. – 1:15 p.m.
Company: Blue Earth Diagnostics

Theater 2, Innovation Hub
Optimizing Treatment in Unresectable Stage II Non-small Cell Lung Cancer: Treatment for Unresectable Stage III NSCLC Following Concurrent Chemoradiation Therapy
12:15 p.m. – 1:15 p.m.
Company: AstraZeneca

Theater 1, Innovation Hub
MR-guided Daily Adaptive SBRT for Prostate Cancer – A Phase 2 Prospective Study and MR-guided SBRT for Pancreas with On-table Adaptation on MRIdian – MCI Experience
2:30 p.m. – 3:30 p.m.
Company: ViewRay Inc.

Monday, September 16
Theater 1, Innovation Hub
Sometimes the Best Medicine...is All of Them: Combination Therapy with Reflexion Biology-guided Radiotherapy
10:15 a.m. – 11:15 a.m.
Company: Reflexion Medical

Theater 2, Innovation Hub
Groundbreaking Advancements in Real Time, In-vivo Dosimetry
10:15 a.m. – 11:15 a.m.
Company: RadialDyne, an AngloDynamics company

Theater 1, Innovation Hub
Hydrogel Spacing is Becoming the Gold Standard to Reduce Recal Toxicity in Prostate Cancer Radiotherapy, Discover Why Over 50,000 Patients Have Been Treated Worldwide!
12:15 p.m. – 1:15 p.m.
Company: Boston Scientific

Theater 2, Innovation Hub
Dynamic Tracking and Motion Synchronization: Over 15 Years of Accuracy Leadership
12:15 p.m. – 1:15 p.m.
Company: Accuray Incorporated

Theater 1, Innovation Hub
SGRT: Making Precision Radiotherapy a Reality for Every Patient, Every Fraction
3:30 p.m. – 4:30 p.m.
Company: Vision RT Ltd.

Tuesday, September 17
Theater 1, Innovation Hub
Identifying and Treating Patients with Non-metastatic Castration Resistant Prostate Cancer
10:15 a.m. – 11:15 a.m.
Company: Janssen Biotech

Theater 2, Innovation Hub
TTFields for the Radiation Oncologist
10:15 a.m. – 11:15 a.m.
Company: Novocure

Theater 1, Innovation Hub
Onyxate DX*: Personalizing Approaches to Locoregional Recurrence in Invasive Breast Cancer and DCIS
12:00 p.m. – 1:00 p.m.
Company: Genomic Health

Theater 2, Innovation Hub
Come Discover a Systemic Treatment Option for Patients with Advanced CSCC
12:00 p.m. – 1:00 p.m.
Company: Sanofi Genzyme

*The Industry-Expert Theater content and views expressed herein are those of the companies and not of ASTRO. Lunch or other food and beverages may be provided by the companies, which may subject you to reporting under the Federal Sunshine Act (the Open Payments Program) or other state laws.
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BACK THIS YEAR ARE THE ASTRO CONNECT BOOTHS WITH A
SPECIALTY FOCUS.

These booths offer a comfortable spot for networking with colleagues with similar interests and a
place to recharge electronic devices and check email. Top posters in each disease site are on display
electronically, with experts available during designated times to answer your questions. ASTRO
thanks the following sponsor for their support: Galera Therapeutics (Physics ASTRO Connect). Below
is the schedule of Meet the Experts sessions:

<table>
<thead>
<tr>
<th>Disease Site</th>
<th>Booth #</th>
<th>Sunday, September 15</th>
<th>2:45 p.m. – 3:15 p.m.</th>
<th>Monday, September 16</th>
<th>12:30 p.m. – 1:00 p.m.</th>
<th>3:45 p.m. – 4:15 p.m.</th>
<th>Tuesday, September 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>3245</td>
<td>2:45 p.m. – 3:15 p.m.</td>
<td>Eleanor Harris, MD, FASTRO</td>
<td>Jennifer Bellon, MD, FASTRO</td>
<td>Laura Warren, MD</td>
<td>Rachel Jimenez, MD, and EDU 05 Faculty</td>
<td>Julia White, MD, FASTRO</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td>3205</td>
<td>2:45 p.m. – 3:15 p.m.</td>
<td>Stephanie Combs, MD, PhD, and Kristin Redmond, MD, MPH</td>
<td>Martin Tom, MD, and Erin Murphy, MD</td>
<td>Feng-Ming Hsu, MD, PhD, and Jason Chia Hsien Cheng, MD, PhD, MD</td>
<td>Christina Tsien, MD</td>
<td>Erik Sulman, MD, PhD, and Jona Hattangadi-Guth, MD</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>1245</td>
<td>10:30 a.m. – 11:00 a.m.</td>
<td>Quynh-Thu Le, MD, FASTRO</td>
<td>David Sher, MD, MPH</td>
<td>Loren Mell, MD</td>
<td>David Palma, MD, PhD</td>
<td>Samuel Swisher-McClure, MD, MS, and Alexander Lin, MD</td>
</tr>
<tr>
<td>Lung</td>
<td>3224</td>
<td>10:30 a.m. – 11:00 a.m.</td>
<td>Alina Mihai, MD, MS, and Dwight Heron, MD</td>
<td>Allison Campbell, MD, PhD, and Roy Decker, MD, PhD</td>
<td>Bradford Perez, MD</td>
<td>Melissa Frick, MD, and Gary Kao, MD, PhD</td>
<td>Katelyn Atkins, MD, PhD, and Raymond H. Mak, MD</td>
</tr>
<tr>
<td>Physics</td>
<td>1205</td>
<td>10:30 a.m. – 11:00 a.m.</td>
<td>Maksat Haytmyradov, PhD, and John Roeske, PhD</td>
<td>David Carlson, PhD, and Panel 03 Faculty</td>
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2020 UPCOMING ASTRO MEETINGS

Multidisciplinary Head and Neck Cancers Symposium
February 27–29, 2020
Westin Kierland Resort and Spa · Scottsdale, Arizona

ASTRO 62nd Annual Meeting
October 25–28, 2020
Miami Beach Convention Center · Miami Beach, Florida

ASTRO Annual Refresher Course
March 20–22, 2020
The Ritz-Carlton · New Orleans, Louisiana

Best of ASTRO
November 13-14, 2020
Beverly Wilshire Hotel · Beverly Hills, California

Annual Advocacy Day
April 20–21, 2020
Washington Court Hotel · Washington, DC

Multidisciplinary Thoracic Cancers Symposium
December 3–5, 2020
Omni Scottsdale Resort & Spa at Montelucia · Scottsdale, Arizona

ASTRO Research Workshop
Harnessing the Power of Artificial Intelligence to Improve Radiation Therapy
June 11–12, 2020
FH360 Conference Center · Washington, DC

ASTRO Coding and Coverage Seminar
December 2020
ASTRO Headquarters · Arlington, Virginia
SpaceOAR® Hydrogel is clinically proven to help minimize the impact on urinary, sexual and bowel quality of life for prostate cancer patients undergoing radiation therapy.\(^1\)

Originally developed by Augmenix, SpaceOAR Hydrogel is now part of the Boston Scientific portfolio.

Monday, September 16, 2019
12:15 — 1:15 pm
Location: Theater 1, Innovation Hub
Registration on site. Lunch will be provided.

**Moderator**

Steven J. Frank, MD, FACR
Professor and Deputy Head, Radiation Oncology
Executive Director, Particle Therapy Institute,
The UT MD Anderson Cancer Center, Houston, TX

**Speakers**

The clinical utility of SpaceOAR Hydrogel in a high volume CyberKnife practice

Sean Collins, MD
Associate Professor in Radiation Medicine, Director, CyberKnife Prostate Program, Member, Prostate Program
Georgetown University Hospital, Lombardi Cancer Center, Washington, DC

Maximizing benefit from a hydrogel spacer with optimal placement strategies

Michael J. Zelefsky, MD
Professor of Radiation Oncology, Vice-Chair, Department of Radiation Oncology, Chief, Brachytherapy Services, Memorial Sloan Kettering Cancer Center, New York, NY

Improving prostate cancer outcomes using SAbR with SpaceOAR Hydrogel

Robert Timmerman, MD
Professor of Radiation Oncology and Neurosurgery, University of Texas Southwestern Medical Center, Dallas, TX

Overcoming technical challenges when using SpaceOAR Hydrogel

Marcio Fagundes, MD
Medical Director Radiation Oncology Department, Miami Cancer Institute, Miami, FL

Visit us at Boston Scientific Booth #1009 or www.spaceoar.com to learn more

The industry-Expert Theater content and views expressed therein are those of the Exhibitor and not of ASTRO.

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4. Follow the latest scientific developments.

As with any medical treatment, there are some risks involved with the use of SpaceOAR Hydrogel. Potential complications associated with SpaceOAR Hydrogel include, but are not limited to: pain associated with SpaceOAR Hydrogel, injection, or discomfort at injection site; SpaceOAR Hydrogel needle puncture of the bladder, prostate, rectal wall, or a combination thereof; need for additional treatment, including follow-up treatment, procedures, or additional treatment due to adverse effects. Use caution when prescribing or administering SpaceOAR Hydrogel. As with all medications, administer according to the prescription. Caution: U.S. Federal Law restricts this device to sale by or on the order of a physician.

Consult your physician for a detailed list of possible adverse reactions. This material is not intended for use in countries outside of the U.S. The CyberKnife system is a registered trademark of Accuray Incorporated.