ASTRO DAILY NEWS

60TH ANNUAL MEETING | OCTOBER 21-24, 2018

TUESDAY AND WEDNESDAY | ISSUE 2

Future path of "Radiation at a Crossroads" highlighted by ASTRO President Paul Harari

In his Presidential Address yesterday, ASTRO President Paul Harari, MD, FASTRO, highlighted what he believes today's breakthroughs in radiation oncology will mean for tomorrow's cancer patients. Dr. Harari said that he sees the specialty as being characterized in the future by greater precision, increased cure rates, diminished side effects and more effective and durable palliative care. He added that he predicts treatment will become more cost-effective and noted the expanding role multidisciplinary cancer care will play in the field. Dr. Harari also emphasized the criticality of integrating cutting-edge technology with modern cancer biology to effectively achieve such benchmarks. But not all of the address was heavy on science, as he shared some personal aspects of cancer too. We caught up with Dr. Harari after his speech and asked him about some of the topics he discussed.

ASTRO Daily News: Dr. Harari, you told the stories of two patients who became close friends. Why were you inspired to share their journeys in your address?

Although my predominant message focused on advancing the broad discipline of radiation oncology into the future, it is always extremely important to me that we highlight and remember the human side of cancer. This helps bring forth the face of cancer and how we can and must do even better for these patients in the future.

You mentioned that while progress in oncology is ongoing, it has been somewhat step-wise in nature. Looking through your lens as an expert in the field, can you explain what aspects of research contribute to steady strides in cancer treatment and towards a cure in the future?

Continued on page 4

2018 Annual Meeting Virtual Meeting available

Free with full-conference registration

With the Virtual Meeting, you won't have to skip a minute of the 2018 Annual Meeting. Whether you missed that session everyone is talking about or want to go back and reference that great address, the 2018 Virtual Meeting is available as part of registration to full conference attendees through your ASTRO account and available to purchase for all others.

Sessions are available for viewing approximately 24 hours after each session, as released by the presenter. These professionally recorded sessions provide an excellent informational recap and are a useful training tool for continuing learning and reference. With the Virtual Meeting you will receive:

- Recorded presentations and audio.
- Downloadable PDFs of the PowerPoint presentations.
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You can access the 2018 Annual Meeting Virtual Meeting through the Conference Planner or you can log into your MyASTRO account and click on Virtual Meeting products under My Resources.

NCI director gives first keynote

By Tyler Beck and Lisa Braverman

Yesterday morning, Norman "Ned" Sharpless, MD, the National Cancer Institute (NCI) director, gave the first keynote. He began by discussing highlights from the past year, including data showing a steady decline in cancer deaths since the 1990s, as well as an increase in NIH and NCI funds.

Dr. Sharpless discussed his four key focus areas for the NCI, including basic science, workforce development, big data and clinical trials. For workforce development, he mentioned the implementation of R37 grants for early-career investigators to see if a longer funding term can improve research. Clinical trials will help to realize the power of cancer research through innovative design, administration and analyses. There has been an increase in funding for clinical trials, and Dr. Sharpless discussed several promising trials.

In the case of basic science, Dr. Sharpless said the NCI will be reaffirming its commitment to such research. To achieve this, the NCI hopes to reduce the burden of paperwork and provide more infrastructure for researchers, as well as increase the payline for basic science research.

Dr. Sharpless spoke about big data approaches to cancer care, noting that it can be difficult to explain the benefits of data aggregation, but that such information can allow physicians to tailor treatment in ways that can save lives.

After his remarks, Drs. Paul Harari, Brandon Mahal, Brian Marples and Catherine Park had the opportunity to pose questions to Dr. Sharpless.

Dr. Marples aked what areas of research NCI can fund now that they could not fund previously. NCI expects to see another increase in the next fiscal year for the RPG pool, but Dr. Sharpless acknowledged that the number of grant applications has been steadily rising.

Dr. Park asked a question about how the NCI can increase the diversity of the field. There are grants at the NCI that seek to identify diverse talent early, and they have traditionally focused on research training experiences in order to preserve the pipeline of cancer researchers and physicians.

Finally, Dr. Harari asked how we can advance the profile of radiation oncology. Dr Sharpless suggested that novel combinations with immunotherapy and a focus on radio-pharmaceuticals will help capture national attention for the field.

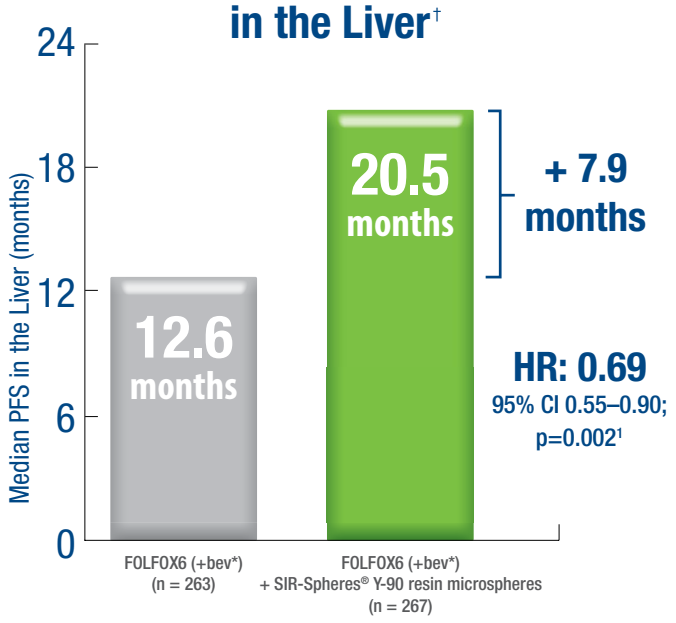
CORRECTION

A photo that was published in the last edition of ASTRO Daily News was associated with the incorrect story. The photo that accompanied the PRO Program story on page 5 was actually a photo of the Letter of Intent Writing Workshop. We regret the error.

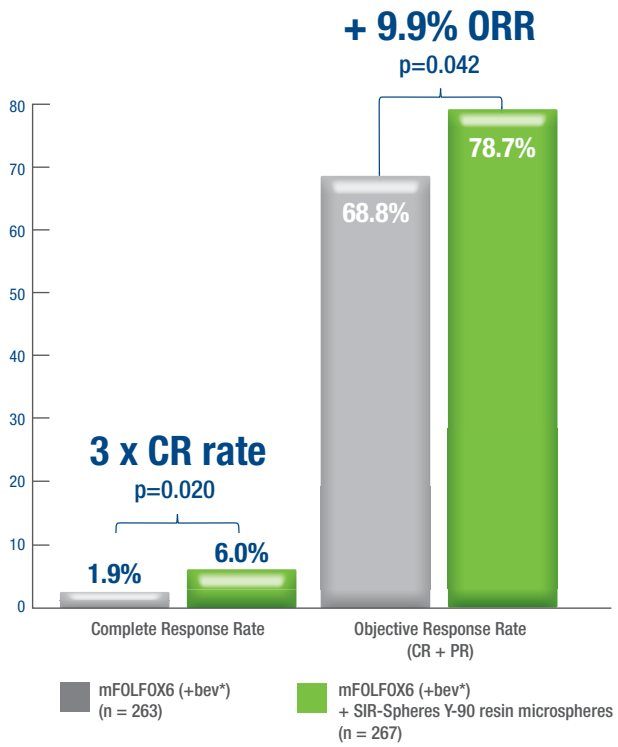
SIRTeX

Working **better together** in the **liver**

Progression Free Survival in the Liver†



Objective Response Rate in the Liver



SIR-Spheres® Y-90 resin microspheres

Better together with 1st-line chemo in mCRC

† The Primary Endpoint of Overall PFS was not met in this study

1. van Hazel GA et al. *J Clin Oncol* 2016; **34**: 1723–1731.

bev*: bevacizumab (bevacizumab allowed at investigator's discretion, per institutional practice)

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SCHEDULE AT A GLANCE

Tuesday, October 23, 2018

7:45 a.m. – 8:15 a.m.
Science Highlights – *Gastrointestinal*
Room: 304; 0.50 CME

7:45 a.m. – 9:00 a.m.
Education Sessions; 1.25 CME
- **EDU 18 (Interactive)** – *Re-irradiation in the Thorax: Clinical Pearls and Guidance from the Literature*, Room: 302
- **EDU 19 (Live SA-CME)** – *Advances in Cervical Cancer*, Room: 214 C/D **Ticketed Event**
- **EDU 20 (Interactive)** – *Lowering the Radiation Dose in Lymphoma Treatment – Can We Go Lower?*, Room: 217 A/B
- **EDU 21** – *Survivorship Care: What Have We Learned in the Last Three Years?*, Room: 005
- **EDU 22 (Live SA-CME)** – *Clinical and Planning Approaches for Re-irradiation*, Room: 006 **Ticketed Event**

7:45 a.m. – 9:00 a.m.
Scientific Sessions; 1.25 CME
- **SS 18 – Physics 4** – *Imaging for Response Assessment 1*, Room: Lila Cockrell Theatre
- **SS 19 – Biology 4** – *Normal Tissue Radiobiology*, Room: 008
- **SS 20 – Sarcoma and Cutaneous Tumors**, Room: 007 A/B
- **SS 21 – Breast 2** – *Biology and SBRT*, Room: 214 A/B
- **SS 22 – Late-breaking Abstracts Special Session**, Room: 007 C/D

8:30 a.m. – 9:00 a.m.
Science Highlights – *Genitourinary*, Room: 304; 0.50 CME

9:00 a.m. – 9:15 a.m.
Break

9:15 a.m. – 10:15 a.m.
Keynote II: *Mark Stevenson, Futurologist, Author and Broadcaster,* Room: Stars at Night Ballroom; 1.00 CME

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

10:00 a.m. – 5:00 p.m.
Poster Viewing Open

10:15 a.m. – 11:30 a.m.
Awards Ceremony, Room: Stars at Night Ballroom; 0 CME

10:45 a.m. – 11:30 a.m.
ASTRO Connect Meet the Expert
Physics: Booth #3145 – Emily Kowalski, MD, and Elizabeth Nichols, MD
Breast: Booth #423 – Steven Chmura, MD, PhD
CNS: Booth #2245 – Vinai Gondi, MD, and Minesh Mehta, MD, ChB, FASTRO
GU: Booth #4045 – Daniel Spratt, MD
Head and Neck: Booth #1520 – Dwight Heron, MD, MBA

11:00 a.m. – 2:30 p.m.
ASTRO Bistro

11:30 a.m. – 1:00 p.m.
Business Meeting Luncheon – Voting Members Only, Room: Hemisfair Ballroom 3; 0 CME

1:00 p.m. – 2:30 p.m.
Education Sessions; 1.50 CME
- **EDU 23 (Interactive)** – *Ultra-hypofractionated Therapy for Clinically Localized Prostate: Are We Finally Ready for Prime Time?*, Room: 214 A/B
- **EDU 24 (Interactive)** – *Challenging Cases in the Management of Gliomas*, Room: 008
- **EDU 25 (Live SA-CME)** – *Translational Genomics to Advance Precision Radiation Oncology*, Room: 006 **Ticketed Event**

1:00 p.m. – 2:30 p.m.
Panel Sessions; 1.50 CME
- **Panel 09 (Interactive)** – *Current and Future Applications for MR-guided Radiotherapy with Real-time Adaptive Radiotherapy*, Room: Lila Cockrell Theatre
- **Panel 10 (Interactive)** – *Artificial Intelligence and Deep Learning within Radiation Oncology: Current Applications and Future Directions*, Room: 304

1:00 p.m. – 2:30 p.m.
Poster Discussion Sessions; 1.50 CME
- **PD 09 – Physics 5** – Imaging for Treatment Planning, Room: 217 C/D
- **PD 10 – Head and Neck 2**, Room: 217 A/B

1:00 p.m. – 2:30 p.m.
Poster Viewing Q&A 3 – *Physics, Palliative Care, Patient Safety, Education and History, Pediatrics, Health Services Research, Non-malignant Tumors*, Location: Innovation Hub, Exhibit Hall 3; 0 CME

1:00 p.m. – 2:30 p.m.
Scientific Sessions; 1.50 CME
- **SS 23 – Breast 3**, Room: 303
- **SS 24 – GYN 1**, Room: 007 A/B
- **SS 25 – Hematologic 2** – *Translating Better Technology to Reduced Toxicity*, Room: 004

1:00 p.m. – 2:30 p.m.
Workshop 05 (Interactive) – *NCI/ASTRO Diversity Symposium: Increasing Minority Enrollment in Clinical Trials in Radiation Oncology: Why and How*, Room: 302; 1.50 CME

1:30 p.m. – 2:00 p.m.
Meet the Editor – *International Journal of Radiation Oncology • Biology • Physics* (Red Journal), Anthony Zietman, MD, FASTRO, Location: Innovation Hub

1:30 p.m. – 2:15 p.m.
ASTRO Connect Meet the Expert
Physics: Booth #3145 – Jeffrey Burkeen, MD, MS, and Jona Hattangadi-Gluth, MD
Breast: Booth #423 – Corey Speers, MD, PhD, BS, and Reshma Jagsi, MD, PhD, FASTRO
CNS: Booth #2245 – Tony Wang, MD
GU: Booth #4045 – Neha Vapiwala, MD
Head and Neck: Booth #1520 – David Raben, MD, FASTRO

2:30 p.m. – 3:00 p.m.
Meet the Editor – *Advances in Radiation Oncology (Advances)*, Robert C. Miller, MD, MBA, FASTRO, Location: Innovation Hub

2:30 p.m. – 2:45 p.m.
Break

2:45 p.m. – 4:15 p.m.
Education Sessions; 1.50 CME
- **EDU 26 (Interactive)** – *Oropharynx Tumor Board: Multidisciplinary Case-based Discussions of Modern Oropharynx Cancer Treatment*, Room: 008
- **EDU 27 (Live SA-CME)** – *Clinical Safety, Toxicity and Efficacy of Immunotherapies in Combination with Radiation Therapy*, Room: 006 **Ticketed Event**
- **EDU 28 (Interactive)** – *Challenging Cases of Hodgkin's Lymphoma and Non-Hodgkin's Lymphoma*, Room: 304

2:45 p.m. – 4:15 p.m.
Panel Sessions; 1.50 CME
- **Panel 11 (Interactive)** – *The Good, the Bad and the Ugly: The Quality Payment Program*, Room 303
- **Panel 12 (Interactive)** – *Volumetric Brachytherapy for Gynecologic Cancers: What is New, What is Essential and What is Feasible?*, Room: 214 A/B

2:45 p.m. – 4:15 p.m.
Poster Discussion Sessions; 1.50 CME
- **PD 11 – Biology 5**, Room: 217 A/B
- **PD 12 – Physics 6** – *Adaptive Planning/Delivery and Motion*, Room: 217 C/D

2:45 p.m. – 4:15 p.m.
Poster Viewing Q&A 4, *Gynecological, Breast, Lung, Patient Reported Outcomes, Nursing*, Location: Innovation Hub, Exhibit Hall 3; 0 CME

2:45 p.m. – 4:15 p.m.
Scientific Sessions; 1.50 CME
- **SS 26 – Lung 3** - *Toxicity*, Room: 007 C/D
- **SS 27 – Physics 7** – *Special Session: Outcome Analysis and Modeling*, Room: 214 C/D
- **SS 28 – GU 3** – *New Insights into Treatment Intensification Strategies for Prostate Cancer*, Room: 007 A/B

2:45 p.m. – 4:15 p.m.
Special Session 01 – *Research Spotlight: ASTRO's Research Award Winners*, Room 005; 1.50 CME

3:15 p.m. – 4:00 p.m.
ASTRO Connect Meet the Expert
Physics: Booth #3145 – Mary Feng, MD
Breast: Booth #423 – Dana Casey, MD, and Nadeem Riaz, MD, MS
CNS: Booth #2245 – Kristin Redmond, MD, MPH
GU: Booth #4045 – Robert Den, MD
Head and Neck: Booth #1520 – Min Yao, MD, PhD, FASTRO

4:15 p.m. – 4:45 p.m.
Break

4:15 p.m. – 5:00 p.m.
ASTRO Connect Meet the Expert
Physics: Booth #3145 – Percy Lee, MD
Breast: Booth #423 – Gary Freedman, MD
CNS: Booth #2245 – Christina Irene Tsien, MD
GU: Booth #4045 – Howard Sandler, MD, MS, FASTRO
Head and Neck: Booth #1520 – Danielle Margalit, MD, MPH

4:30 p.m. – 5:00 p.m.
Meet the Editor – *International Journal of Radiation Oncology • Biology • Physics* (Red Journal), Sue Yom, MD, PhD, Location: Innovation Hub

4:45 p.m. – 6:15 p.m.
Education Sessions; 1.50 CME
- **EDU 29 (Interactive)** – *That Wasn't in the Textbooks! Challenging Cases in Palliative Care*, Room: 008
- **EDU 30** – *Targeting Metabolism in Cancer,* Room: 004
- **EDU 31 (Interactive)** – *Challenging Cases in Lung Cancer: Oligometastatic Disease*, Room: 303

schedule continues on next page

Press Highlights

Long-term side effects similarly low for once-weekly and conventional breast radiation therapies, trial finds

In a 10-year study of women who received radiation therapy to treat early-stage breast cancer, those receiving fewer, larger individual doses experienced similarly low rates of late-onset side effects as those undergoing conventional radiation therapy. The abstract, *FAST phase III RCT of radiation therapy hypofractionation for treatment of early breast cancer: 10-year results (CRUKE/04/015)*, was presented by lead author Murray Brunt, MD, a professor of clinical oncology at University Hospitals of North Midlands and Keele University in the United Kingdom (UK), and lead author of this study. The trial, which was designed to assess changes in healthy breast tissue following conventional radiation treatment compared with two shorter regimens that delivered higher doses of radiation in fewer sessions.

Aggressive treatment for some stage IV lung cancer patients can dramatically improve overall survival

Adding radiation therapy or surgery to systemic therapy for stage IV lung cancer patients whose cancer has spread to a limited number of sites can extend overall survival time significantly, according to new results from a multicenter, randomized, controlled phase II study. Researchers previously reported encouraging results for progression-free survival (PFS), which were published in *Lancet Oncology* in 2016. These new results were presented as the abstract, *Local consolidative therapy (LCT) improves overall survival (OS) compared to maintenance therapy/observation in oligometastatic non-small cell lung cancer (NSCLC): Final results of a multicenter, randomized, controlled phase 2 trial* by Daniel Gomez, MD, Associate Medical Director of radiation oncology at the University of Texas MD Anderson Cancer Center in Houston.

These abstracts were presented Sunday afternoon as part of the Clinical Trials session. View the Virtual Meeting for more details at www.astro.org/virtualmeeting.

To read summaries of the other groundbreaking clinical trials presented during the Clinical Trials session, see page 16.

ASTRO Daily News 2018
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Recap continued from page 1

Progress in oncology is accelerating with contributions from many individual disciplines. This is why team science and broad multidisciplinary collaborations are so critical to the future. We did not land a man on the moon with a few individual experts working in isolation, but rather with teams of experts working together towards a grand objective. The same goes for cancer cures that will be achieved by teams of experts working closely in collaboration. Radiation is an enormously powerful modality for cancer cure. We have a critically important seat at the cancer treatment table, and we can advance the impact of radiation much further by seeing and realizing opportunities for integrating radiation most effectively with other therapies.

You talked about partnering modern technology with the newest cancer biology. What will that look like going forward so that radiation oncologists may continue to move the needle closer to increasingly optimal cancer treatments?

Opportunities are now emerging to leverage information from modern imaging techniques and state-of-the-art cancer biology that can help us personalize radiation prescriptions for cancer patients in the future. This is an incredibly powerful objective for the future of radiation oncology. Not all tumors are the same, and in fact they are highly individualized. Therefore, treatments should be individualized based on specific characteristics of the tumor rather than using a blanket approach for all patients with lung or breast cancer, for example.

At last year's Annual Meeting, in an ASTRO Daily News article, 2017 ASTRO President Dr. Brian Kavanagh referred to you as a "physician-scientist extraordinaire" and predicted this year's meeting would "showcase cutting-edge innovations that have the potential to transform our methods of cancer treatment." His thoughts were quite accurate. Do you feel the message in your address and the overall meeting are on target with your goal of highlighting the theme of "Translating Discovery to Cure?"

First, let me say that is a wonderful compliment from Brian. Sunday's Presidential Symposium actually was all about cutting-edge innovations and how radiation oncology can play an important role in these new arenas. In my address today, I strove to convey the message that the brilliant technologies developed in radiation oncology in recent years are poised to be dovetailed with emerging advances in modern cancer biology. We have the opportunity to dramatically increase cure rates for various tumors by marrying technology and biology, and are better positioned than ever to translate "discoveries to cure" over the next decade and beyond.

SCHEDULE AT A GLANCE

Tuesday, October 23, 2018, continued

4:45 p.m. – 6:15 p.m.
Panel Sessions; 1.50 CME
- **Panel 08** – *The Radiobiological Bases of Novel Radiation Treatment Schemes for Breast Cancer*, Room: 006
- **Panel 13 (Interactive)** – *Practical Case Based Discussions of Single vs. Fractionated Stereotactic Radiosurgery for Benign Brain Tumors*, Room: 007 C/D
- **Panel 14 (Live SA-CME)** – *The New ILROG Guidelines: Come and Learn How to Use ISRT, Hear It from the Experts Who Wrote the Guidelines*, Room: 302 **Ticketed Event**

4:45 p.m. – 6:15 p.m.
Poster Discussion Sessions; 1.50 CME
- **PD 13 – Physics 8** – *Outcome Analysis and Response Imaging*, Room: 217 C/D
- **PD 14 – Digital Health Information and Informatics**, Room: 217 A/B

4:45 p.m. – 6:15 p.m.
Scientific Sessions; 1.50 CME
- **SS 29 – Physics 9** – *Imaging for Treatment Planning*, Room: 304
- **SS 30 – GU 4** – *SBRT for Prostate and Renal Cancers*, Room: 214 C/D
- **SS 31 – Head and Neck 3** – *Strategies to Improve Outcomes and Minimize Toxicity in Oropharyngeal Cancer*, Room: 214 A/B

ASTRO's 60th Annual Meeting — Translating Discovery to Cure

Wednesday, October 24, 2018

7:45 a.m. – 8:15 a.m.
Science Highlights – *Breast Cancer*, Room: 304; 0.50 CME

7:45 a.m. – 9:00 a.m.
Education Sessions; 1.25 CME
- **EDU 32 (Interactive)** – *4-D CT/CBCT, 4-D MRI and Beyond 4-D Imaging*, Room: 217 C/D
- **EDU 33 (Interactive)** – *Stereotactic Body Radiation Therapy for Spine Metastases: What Can be Offered When Conventional Radiation Fails?*, Room: 303
- **EDU 34 (Interactive)** – *Cancer of the Colon, Rectum and Anus*, Room: 206
- **EDU 35 (Interactive)** – *New Combinations of Radiation and Systemic Therapies in Lung Cancer: Chemotherapy, Targeted Agents and Immunotherapy*, Room: 006
- **EDU 36 (Live SA-CME)** – *How to Incorporate MRI and PET Imagining into Clinical Practice for Prostate Cancer Management*, Room: 302 **Ticketed Event**

7:45 a.m. – 9:00 a.m.
Scientific Sessions; 1.25 CME
- **SS 32 – Physics 10** – *Imaging for Responses Assessment II*, Room: 217 A/B
- **SS 33 – Biology 6** – *Radiation Biology and Radiation Sensitizers*, Room: 004
- **SS 34 – Patient Safety**, Room: 008
- **SS 35 – Hematologic 3** – *Translating Better Technology to Improved Outcome in Primary and Relapsed Disease*, Room: 007 A/B
- **SS 36 – Head and Neck 4** – *Latest Advances in Nasopharyngeal Carcinoma*, Room: 214 A/B

8:30 a.m. – 9:00 a.m.
Science Highlights – *Palliative Care*, Room: 304; 0.50 CME

9:00 a.m. – 9:15 a.m.
Break

9:15 a.m. – 10:00 a.m.
Special 60th Anniversary Session – *Trailblazers Contemplate the Legacy and Future of Radiation Oncology*, Room: Stars at Night Ballroom; 0.75 CME

10:00 a.m. – 10:45 a.m.
ASTRO Guidelines Highlight Session, Room: Stars at Night Ballroom; 0.75 CME

10:45 a.m. – 11:00 a.m.
Break

11:00 a.m. – 12:30 p.m.
Education Sessions; 1.50 CME
- **EDU 37 (Live SA-CME)** – *Elective Volumes in Common Head and Neck Cancers – Identifying Nodal and Non-nodal Volumes at Risk*, Room: 006 **Ticketed Event**
- **EDU 38 (Interactive)** – *Challenging Cases in the Management of Breast Cancer*, Room: 303
- **EDU 39 (Interactive)** – *Clinical Trials Design and Methodology Education in Radiation Oncology*, Room: 007 A/B

11:00 a.m. – 12:30 p.m.
Joint Session 04 – *ASTRO/PROS Joint Session: Conference on the North American and European Approaches to Rhabdomyosarcoma and Hodgkin's Lymphoma*, Room: 008

11:00 a.m. – 12:30 p.m.
Panel Sessions; 1.50 CME
- **Panel 15 (Interactive)** – *Burnout and Work-life Balance in Radiation Oncology*, Room: 004
- **Panel 16** – *Exploiting the DNA Damage Response to Improve the Response to Radiation Therapy*, Room: 304
- **Panel 17 (Interactive)** – *The Impact of the Affordable Care Act on Cancer Care for Underserved Communities: The Good, the Bad and the Unknown*, Room: 214 A/B

11:00 a.m. – 12:30 p.m.
Poster Discussion Sessions; 1.50 CME
- **PD 15 – GYN 2**, Room: 217 A/B
- **PD 16 – Lung 4**, Room: 217 C/D

11:00 a.m. – 12:30 p.m.
Scientific Sessions; 1.50 CME
- **SS 37 – Physics 11** – *Online Imaging and Motion Management*, Room: 302
- **SS 38 – GI 4** – *Hepato-Pancreatic-Biliary*, Room: 206

12:30 p.m. – 1:30 p.m.
Lunch Break

1:30 p.m. – 3:00 p.m.
Education Sessions; 1.50 CME
- **EDU 40 (Interactive)** – *Challenging Cases in the Management of Endometrial Cancer*, Room: 302
- **EDU 41** – *Practical Big Data – Applications and Results*, Room: 008
- **EDU 42** – *Cancer Stem Cells and Therapeutic Resistance*, Room: 007 A/B

1:30 p.m. – 3:00 p.m.
Panel Sessions; 1.50 CME
- **Panel 18** – *Establishing Evidence-based Indications for Proton Beam Therapy: Have We Made Any Progress?* Room: 303
- **Panel 19 (Interactive)** – *Integrating Immunotherapy in the Definitive Setting in Radiation Oncology*, Room: 304
- **Panel 20 (Live SA-CME)** – *Defining the Clinical Target Volume: From the Art to the Science*, Room: 006 **Ticketed Event**

1:30 p.m. – 3:00 p.m.
Poster Discussion Sessions; 1.50 CME
- **PD 17 – Breast 4**, Room: 217 A/B
- **PD 18 – Lung 5** – *SBRT*, Room: 217 C/D

1:30 p.m. – 3:00 p.m.
Scientific Sessions; 1.50 CME
- **SS 39 – Biology 7** – *Special Session: Innovative Biologic Approaches to Improve Risk Stratification and Treatment Outcomes*, Room: 206
- **SS 40 – CNS 3** – *CNS Metastasis*, Room: 004
- **SS 41 – GU 5** – *Discoveries for High Risk and Recurrent Prostate Cancer*, Room: 214 A/B

3:00 p.m. – 3:15 p.m.
Break

3:15 p.m. – 4:45 p.m.
Education Session; 1.50 CME
- **EDU 43** – *Promises and Pitfalls of Using MRI in Treatment Planning*, Room: 304

3:15 p.m. – 4:45 p.m.
Panel Sessions; 1.50 CME
- **Panel 21 (Interactive)** – *Use of Advanced Technologies in Palliative Care: A Brave New World or a Costly Mistake?*, Room: 007 A/B
- **Panel 22 (Live SA-CME)** – *Translating Needs into Action: Adolescent and Young Adult Cancer Care for the Radiation Oncologist*, Room: 217 C/D **Ticketed Event**
- **Panel 23 (Live SA-CME)** – *An Evidence-driven Guide to Thinking Through Radiation and Surgery for Brain Metastasis*, Room: 006 **Ticketed Event**

3:15 p.m. – 4:45 p.m.
Poster Discussion Session; 1.50 CME
- **PD 19 – Physics 12** – *Treatment Planning*, Room: 217 A/B

3:15 p.m. – 4:45 p.m.
Scientific Sessions; 1.50 CME
- **SS 42 – Physics 13** – *Treatment Delivery Techniques*, Room: 303
- **SS 43 – Biology 8** – *Radiation and the Immune Response Session II*, Room: 004
- **SS 44 – HSR 2** – *Health Services Research*, Room: 008

Strategic plan update: elevating the profile of radiation oncology

By Jeff White, Director of Public Relations and Strategic Communications, jeff.white@astro.org

ASTRO adopted a new strategic plan in 2017 and one of the plan's main priorities is to establish radiation oncology as the recognized leader in quality, innovation and value in multidisciplinary cancer care. To do this, we know that we must share information about the field of radiation oncology and advances in radiation therapy with a larger audience.

Earlier this year, we conducted research to learn from recent radiation therapy patients and better understand their expectations prior to treatment as well as their actual RT experiences. Part of what we learned was that patients viewed their radiation oncologist and the care team as a trusted part of their cancer treatment experience. Patients noted that while they received some good advance information about RT and possible side effects, in hindsight, many wished they had known a bit more about side effects.

Benjamin King, MD, Communications Committee Chair said, "The feedback from this survey helped guide the committee as we streamlined the side effects panels on the patient brochures to be more easily scannable yet comprehensive."

We've taken the feedback from patients and used it to help inform updates to our RTAnswers patient education materials, including new graphics that showcase possible side effects and their duration. More of these patient research findings will be shared in a paper being written by a team of ASTRO members. Some of these results will be shared at the Business Lunch, taking place today, October 23 at 11:30 a.m. in Hemisfair Ballroom 3.

We also know that some of the best ways we can reach new audiences are to tap into our network of ASTRO members who may be affiliated with other medical organizations or patient groups. We've assembled a group of a dozen ASTRO members to serve on what we call the ASTRO Speaker's Bureau. These multidisciplinary experts are working to identify ways to strategically reach beyond our traditional audiences into the broader referring physician and patient communities. The goal of the ASTRO Speaker's Bureau is to raise awareness about advances in RT, increase the use of RTAnswers educational resources and materials and ensure that radiation oncology is included in discussions about multidisciplinary cancer treatment and care.

As we work with consumer media outlets on stories about RT treatments, patient examples are in great demand to help bring a news story to life. We are always looking for our members to help us identify patients they have treated who are willing to share their stories, either on the RTAnswers.org website or in a media interview. In the social media space, ASTRO is actively engaging with audiences, including patient groups, news outlets and the broader oncology community. Many of our members are active communicators via social channels such as Twitter and Facebook and we hope to see more ASTRO members embrace this growing space. We encourage you to follow ASTRO on Twitter and our newly launched Instagram feed at **ASTRO_org**.

Later this year, we plan to conduct additional audience research, this time with primary care and referring physicians. We hope to learn more about their knowledge of radiation oncology and the perceived barriers of them recommending radiation therapy for their patients. We thank all of our ASTRO members who are ambassadors for radiation oncology and welcome ideas for ways to reach a broader audience.

Don't miss Mark Stevenson in Tuesday's Keynote

Author and futurologist on "The Future and What to Do About It"

The second keynote address of the 2018 Annual Meeting will be held in the Stars at Night Ballroom this morning, from 9:15 a.m. until 10:15 a.m., as author and futurologist Mark Stevenson touches on the major trends that he says will shape the world over the next two decades.

Mark Stevenson, "reluctant futurologist" and award-winning author of the best-selling "An Optimist's Tour of the Future" and "We Do Things Differently," is an expert on global trends and innovation. In this talk, he'll give us a whistle stop tour of the good, the bad and the ugly of the next 20 years. How is the landscape of society going to change in terms of technology, energy, governance, health and commerce? And what are the principles that will help successful organizations and individuals innovate through constant change?

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Press Highlights

Men with low- and intermediate-risk prostate cancer can safely benefit from fewer, higher-dose radiation treatments

Stereotactic body radiation therapy (SBRT) is a safe and effective treatment for men with low- and intermediate-risk prostate cancer, according to a long-term, multi-institutional study. The study, presented by lead author Amar U. Kishan, MD, with the David Geffen School of Medicine at the University of California, Los Angeles (UCLA), clears the way for patients who may wish to shorten their course of treatment without fear of increasing their risk for severe, adverse side effects. This multi-institutional consortium study includes data from 10 institutional trials and two large multi-institutional studies. It examines the long-term safety and efficacy of SBRT for low- and intermediate-risk prostate cancer in a cohort of 2,142 men enrolled in institutional phase II trials of SBRT from 2000 to 2012. The abstract will be presented in detail during a scientific session on Tuesday, October 23, 4:45–6:15 p.m., Room 214 C/D.

High-dose, high-precision radiation therapy safe and effective for kidney cancer patients with only one kidney

Treatment of renal cell carcinoma with SABR is as safe and effective for patients with one kidney as it is for those who have two, according to an analysis of the largest-ever, international dataset of solitary kidney patients to receive this emerging treatment. SABR has been shown to be effective in treating cancers in the lung, liver and spine using substantially higher doses of radiation delivered in a single, or just a few, treatment sessions. The abstract will be presented by lead author Rohann J. M. Correa, MD, PhD, with London Health Sciences Center in London, Canada during an oral abstract session on Tuesday, October 23, from 4:45 p.m. to 6:15 p.m.

Combined therapy including pelvic lymph node radiation provides significant benefit for prostate cancer patients

The first report of a clinical trial shows that, for men who show signs of prostate cancer after their prostates were surgically removed, extending radiation therapy to the pelvic lymph nodes combined with adding short-term hormone therapy to standard treatment can extend the amount of time before their cancer spreads. The NRG Oncology/RTOG 0534 SPORRT trial is the first randomized trial to show a significant benefit of RT to the pelvic lymph nodes, and the second to show a benefit of short-term hormone therapy, when added to standard treatment of radiation therapy to the prostate bed. The abstract was presented at the Plenary Session on Monday by Alan Pollack, MD, PhD, with the University of Miami's Sylvester Comprehensive Cancer Center.

Plenary Session highlights research aimed at personalized and new treatment combinations

By Melana Hydrick

At Monday's Plenary Session, five of this year's top-rated abstracts, which were selected from more than 1,900 submissions, were presented. ASTRO Annual Meeting Scientific Committee Chair Lisa A. Kachnic, MD, FASTRO, of Vanderbilt University Medical Center and Vice-chair Andrea Ng, MD, of Brigham and Women's Hospital, moderated the session.

The first abstract showed that stereotactic ablative radiation (SABR) therapy added to standard of care (SOC) treatment for oligometastatic tumors resulted in better median overall survival (OS) and progression free survival (PFS) than SOC treatment alone. The study also looked at patient quality of life (QOL).

"Survival outcomes for patients with oligometastatic disease treated with SABR appear promising and may transform the management landscape for patients with limited metastatic disease," said Dr. Kachnic.

The international study enrolled 99 patients from 2012 to 2016, each with one to five metastatic lesions, all of which were amenable to SABR therapy. Patients were stratified by the number of metastases (one to three versus four to five) and then randomized in a 1:2 ratio between palliative SOC treatments [Arm 1] versus SOC plus SABR to all metastatic lesions [Arm 2]. After a median follow-up of 27 months, the median OS and PFS were both higher in the SABR group. OS was 28 months in Arm 1 versus 41 months in Arm 2; PFS was six months in Arm 1 versus 12 months in Arm 2. Toxicity, rated as grade 2 or higher related to treatment, was two-thirds higher in the SABR group, with only nine percent of patients in Arm 1 reporting grade 2 or higher adverse events, compared with 30 percent reporting them in Arm 2. However, there were no significant differences in patient-reported quality of life between the two groups.

"In this research, the conclusions may be limited by patient selection and the increased morbidity in the SABR arm," commented Dr. Kachnic. "As such, closer analysis of cases with increased adverse events in terms of sites of treatment and doses to surrounding organs-at-risk may further refine selection of patients for this approach."

In the second abstract, researchers determined that in patients with locoregionally advanced human papillomavirus (HPV)-related oropharyngeal cancer, RT combined with cetuximab was non-inferior at five-year OS (the primary endpoint) to that of radiation and cisplatin.

The study showed that radiation with cetuximab was associated with worse OS and PFS compared with the standard treatment of radiation with concurrent cisplatin at five years. The phase III trial evaluated 805 patients from 2011 to 2014. Patients were randomly assigned 1:1 to receive 70 Gray (Gy) of RT in six weeks accelerated (6 fractions/week) with two cycles of 100mg/m2 of cisplatin every three weeks; versus the same RT regimen combined with weekly cetuximab. The overall survival hazard ratio was 1.45 (95 percent CI 1.03-2.05). Estimated five-year survival rates were 84.6 percent for the cisplatin group versus 77.9 percent for the cetuximab patients. Further, PFS was significantly worse with cetuximab compared to cisplatin [hazard ratio 1.72 (1.29-2.29)].

"Several de-escalated treatment strategies for HPV-related oropharyngeal cancers have been proposed," commented Dr. Ng. "This is an important trial because it shows that, despite the overall favorable outcome of patients with HPV-related oropharyngeal cancer, concurrent cisplatin cannot be replaced by concurrent cetuximab, and concurrent radiation therapy with cisplatin remains the standard treatment of patients with locally advanced oropharyngeal cancer regardless of HPV status."

In the third abstract, an analysis showed that prostate cancer tumors in African-American men may be more radiosensitive than those in Caucasian men.

"The incidence of prostate cancer among African-American males is higher than in any ethnic/racial group in the United States, so this study has great significance," said Dr. Kachnic. "Prostate cancer volume is greater in African-Americans and advanced metastatic prostate cancer occurs more frequently."

Researchers looked at transcriptome-wide expression profiles of FFPE tumor samples from 5,831 patients with localized prostate cancer, from prospective and retrospective cohorts, to predict radiation sensitivity and define androgen receptor activity (AR-A) within the samples. After adjusting for other variables, the study group determined that low AR-A was independently prognostic for distant metastasis. African-American men were significantly more likely to have low AR-A, but their tumors were found to have significantly decreased double strand break repair pathway expression and hence increased predicted radiosensitivity. These findings were validated by clinical data from four RTOG trials on radiotherapy for prostate cancer, showing that African-American men had significantly improved outcomes compared with Caucasian men, with significantly lower rates of biochemical recurrence (HR 0.82,p=0.0005) and distant metastasis (HR 0.70, p=0.0008).

"This is the first study showing potential differences in response to radiotherapy in African-American men compared with Caucasian men," commented Dr. Ng. "If the findings are validated by future prospective studies, there may be some influence on treatment recommendations."

In the final abstract, researchers explored escalating salvage therapy in patients with persistently detectable or rising PSA post-prostatectomy. The study found that the addition of four to six months of short-term androgen deprivation (STAD) therapy and pelvic lymph node radiation treatment (PLNRT) to post-prostatectomy prostate bed only salvage radiation therapy (PBRT) resulted in significant incremental improvements in freedom from progression (FFP).

The large, three-arm randomized trial evaluated results of 1,736 eligible patients from 2008 to 2015. Patients were assigned to one of three regimens: PBRT alone (Arm 1), PBRT + STAD (Arm 2), or PLNRT + PBRT + STAD (Arm 3). The FFP primary endpoint included PSA nadir+2, clinical failure or death from any cause, and censoring for secondary salvage therapy was initiated prior to these events. The sample size provided 90 percent statistical power to detect a 10 percent absolute FFP improvement at five years in Arm 2 compared with Arm 1, and a 10 percent absolute improvement at five years in Arm 3 compared with Arm 2 at an overall alpha level of 0.025. The median follow-up for the analysis was 5.4 years, and results indicated the five-year FFP rates were 71.1 percent for Arm 1, 82.7 percent for Arm 2, and 89.1 percent for Arm 3.

"While it is reassuring that the results indicate no large increase in late effects, review of patient-reported outcomes would prove valuable in this regard," said Dr. Kachnic. "Additional follow-up is also warranted here to assess the impact of the additional therapy on prostate cancer-specific survival and OS."

For a summary of the last Plenary presentation, see page 5.

TUESDAY BISTRO MENU

Hearts of Lettuces Garden Salad GF V
Cucumbers, Tomatoes, Bell Peppers,
Red Onions & Radishes, Choice of Dressing

Pasta Salad GF
with Smoked Ham, Cheddar Cheese, Peas and Tarragon Aioli

Parker House Butter Rolls and Pretzel Rolls

Roasted Green Apple-Ginger Brined Pork Loin, Natural Pork Jus

**Vegan Panini with Roasted Portabellas,
Sun Dried Tomatoes, Spinach and Roasted
Red Pepper-Chickpea Spread** V

Wild Rice Pilaf GF V

Grilled Season's Vegetables GF V

Cherry Cheesecake & S'mores Cupcakes
Whole Fruit
Iced Tea and Lemonade

GF GLUTEN FREE V VEGAN VG VEGETARIAN

2018 ANNUAL MEETING PROMOTIONAL SPONSORS

G	Augmenix MEVION medical systems
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STREET TALK

Why do you attend ASTRO?

"The first ASTRO that I attended was in '86 and in those days the organization and the conference was small enough that we all fit in one hotel. It has been wonderful to see the growth of the organization as well as the conference over many years. But it still retains its very congenial and sort of family-like atmosphere despite so many people attending."

– Bruce Minsky, MD, FASTRO,
MD Anderson Cancer Center

"We like interacting with radiation oncologists because they are our main market. It's our biggest and most important conference of the year; it's like our Super Bowl, especially with the global presence."

– Julie Manning, Marketing and Communications, Augmenix

"Coming to ASTRO gives me the opportunity to meet and interact with clinicians whose research guides my clinical practice."

– Joseph A. Miccio, MD,
PGY-3 Resident, Yale Department of Therapeutic Radiology

"I come [to ASTRO] because it's the largest radiation therapy conference. It enables networking with colleagues and friends. Since ASTRO is so broad, it allows me to see the data presented in other fora such as imaging, physics and other tumor sites. As it's a major conference, practice-changing trials are presented here and it's great to see the data firsthand."

–Ananya Choudhury, PhD, MA, MRCP, FRCR, The Christie Foundation Trust

Stay Connected #ASTRO18

Images of ASTRO 2018

Enjoy these snapshots from the session rooms, halls and receptions of ASTRO's 60th Annual Meeting, held October 21-24 in San Antonio, Texas

Thoracic Cancers Symposium to highlight future directions for multidisciplinary care

By Ramesh Rengan, MD, PhD

Make plans to join us March 14-16, 2019, in San Diego at the Hilton San Diego Bayfront for the Multidisciplinary Thoracic Cancers Symposium. The meeting, co-sponsored by ASTRO, the American Society of Clinical Oncology and The Society of Thoracic Surgeons, brings together clinical and research thought leaders from all facets of thoracic oncology. We also welcome two new content advisers this year: the American College of Chest Physicians and the Society of Thoracic Radiology.

The Multidisciplinary Thoracic Cancers Symposium has been described by attendees as "a fantastic meeting for any physician involved in the care of lung cancer patients," and "an exciting meeting which integrates various facets of clinical, translational and basic science." One attendee from 2017 said that "the best meetings for thoracic medical oncology are always multidisciplinary," and another attendee confirmed the multidisciplinary nature of the meeting: "As a thoracic surgeon without access to radiation therapy every day, I learned a new language."

There are numerous recent and ongoing advances in the treatment of patients with thoracic malignancies. Advances are reported almost daily and failure to stay informed can lead to missed opportunities to improve patient care and outcomes. It is increasingly challenging for the clinician to be conversant on the optimal incorporation of these advances into daily practice. Additionally, while these newer approaches demonstrate significant promise, toxicities and adverse interactions have been observed.

This meeting will highlight the relevant strengths and limitations of integration of these cutting-edge approaches into the therapeutic paradigm for thoracic malignancies. It will feature interactive case discussions and tumor boards; educational sessions on multidisciplinary therapies, new targeted therapies, immunotherapy, treatment and screening guidelines and supportive care; and oral abstract sessions highlighting the most current, evidence-based practices. The goal of this meeting is to provide participants with updates on current clinical and translational initiatives in thoracic malignancies, including targeted therapy, immunotherapy, advanced radiation techniques, surgical methodologies and pathological advancements in molecular categorization that are relevant to daily clinical practice. Additionally, attendees will be updated on the appropriate integration of these advancements in their daily practice, including indication, patient selection, combinations of different therapeutic modalities, prevention and management of common toxicities.

The multidisciplinary format of the Thoracic Cancers Symposium fosters the continued collaboration of surgical, medical and radiation oncologists to provide the best cancer care for patients. The program is designed for all members of the care team, including medical oncologists, radiation oncologists, thoracic surgeons, physicists, nurses, diagnostic radiologists, pathologists, thoracic radiologists and pulmonary medicine physicians. Symposium attendees are encouraged to take advantage of the opportunity to network and share information with their colleagues in the field, as well as earn continuing education credits.

ASTRO is accredited with commendation by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. ASTRO designates this live activity for 16.5 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

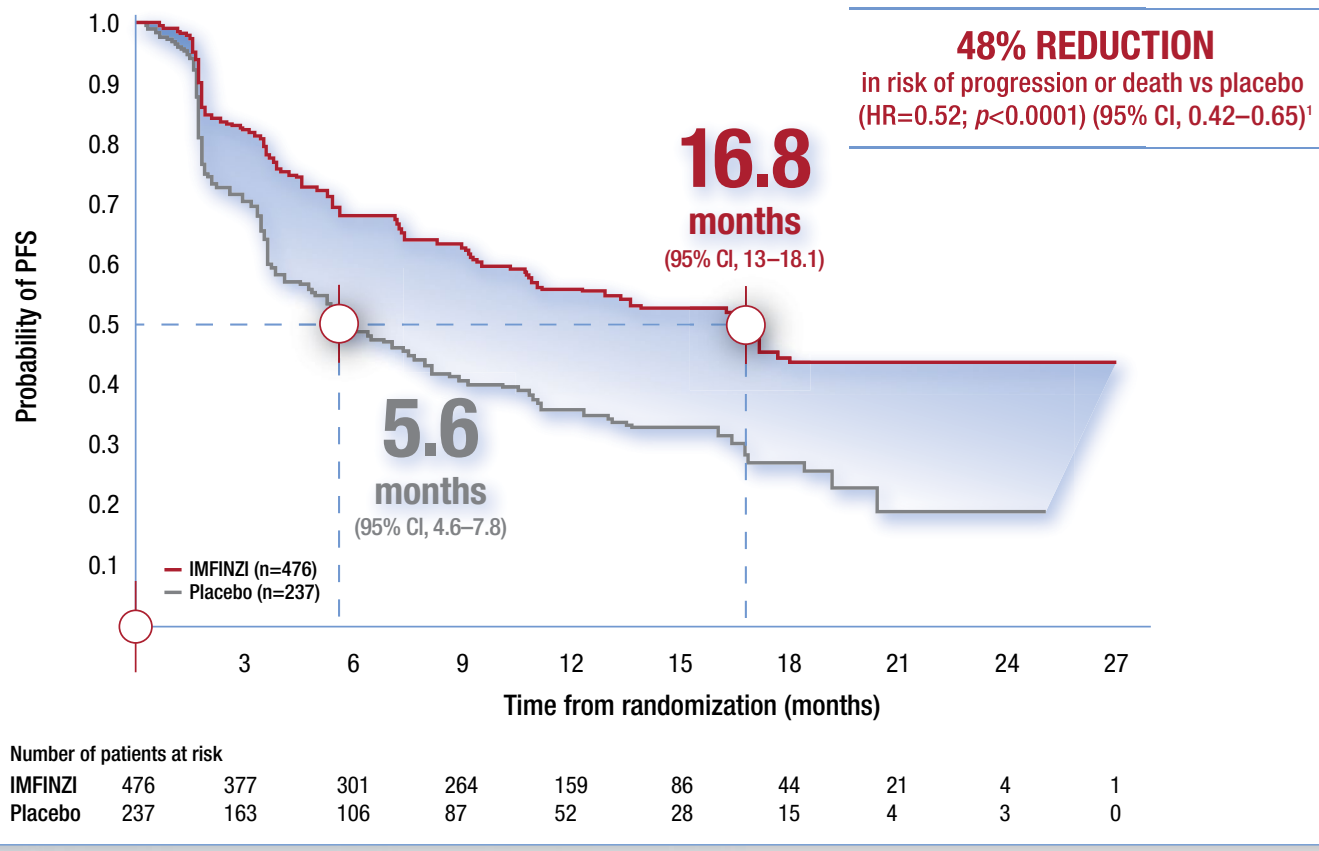
Interested in submitting a late-breaking abstract? The submission site will open December 12 and the deadline to submit a late-breaking abstract is January 16, 2019.

Visit www.thoracicsymposium.org for more information. We hope to see you there!

NOW WITH PFS AND OS DATA

IMFINZI: THE FIRST AND ONLY APPROVED IMMUNOTHERAPY FOLLOWING CRT FOR PATIENTS WITH UNRESECTABLE STAGE III NSCLC

Superior 11.2-month improvement in median PFS*[1]



Number of patients at risk

IMFINZI	476	377	301	264	159	86	44	21	4	1
Placebo	237	163	106	87	52	28	15	4	3	0

Visit AstraZeneca at Booth #2665

Indication[1]

IMFINZI is indicated for the treatment of patients with unresectable Stage III non-small cell lung cancer (NSCLC) whose disease has not progressed following concurrent platinum-based chemotherapy and radiation therapy.

Important Safety Information

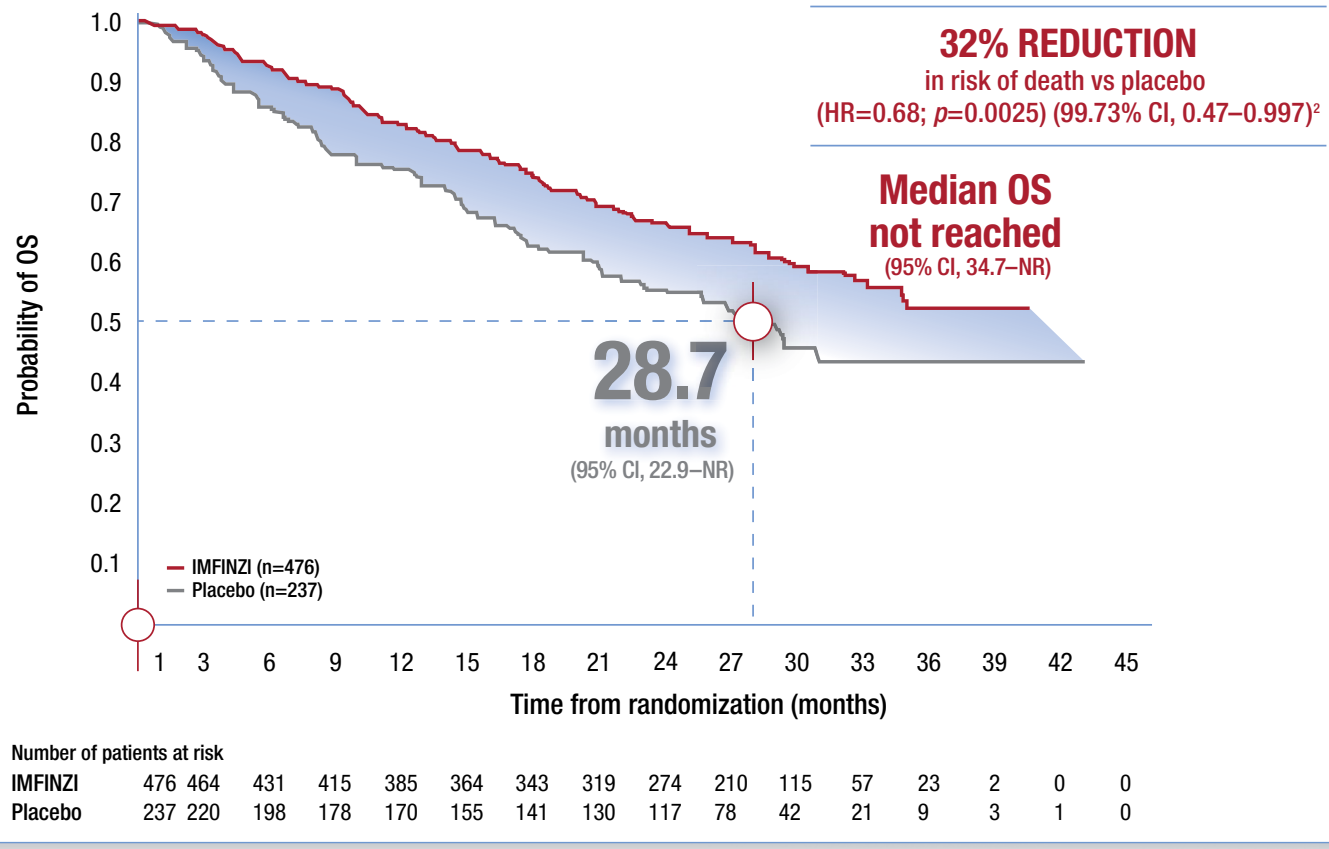
There are no contraindications for IMFINZI® (durvalumab).

IMFINZI can cause serious, potentially fatal adverse reactions including immune-mediated pneumonitis, hepatitis, colitis or diarrhea, endocrinopathies, nephritis, rash or dermatitis, other immune-mediated adverse reactions, infection, and infusion-related reactions. Please refer to the full Prescribing Information for important dosage modification and management information specific to adverse reactions.

PFS: progression-free survival; OS: overall survival; CRT: chemoradiation therapy; NSCLC: non-small cell lung cancer

IMFINZI®
durvalumab
Injection for Intravenous Use 50 mg/mL

Statistically significant OS benefit†[2]



PACIFIC study design

- A large Phase III, randomized, double-blind, placebo-controlled, multicenter study of 713 patients with unresectable Stage III NSCLC whose disease had not progressed following concurrent platinum-based CRT‡[1,3]
- Enrollment was not restricted to any threshold for the level of PD-L1 expression[3]
- The study was designed to demonstrate superior PFS and OS of IMFINZI vs placebo[1,3]

Safety and tolerability

- At the time of OS analysis, the safety and tolerability profile for IMFINZI remained consistent with that reported at the time of PFS analysis[2]
- Serious, potentially fatal risks were seen with IMFINZI; serious adverse reactions occurred in 29% of patients receiving IMFINZI and 23% receiving placebo[3]
- The most frequent serious adverse reactions (≥2%) were pneumonitis or radiation pneumonitis and pneumonia[1]
- The most common adverse reactions (≥20%) were cough, fatigue, pneumonitis or radiation pneumonitis, upper respiratory tract infections, dyspnea, and rash[1]
- Discontinuation rates due to adverse events (regardless of causality) were 15% in patients receiving IMFINZI and 10% in patients receiving placebo[3]

*Measured based on RECIST v1.1 criteria by blinded independent central review (BICR).[3]

†Based on first planned OS interim analysis (42% maturity) of 299 deaths (61% of planned events).[2]

‡Absence of progression following at least 2 cycles of chemotherapy concurrent with radiation and a WHO performance status of 0 or 1.[3]

Please see additional Important Safety Information on next pages.

Important Safety Information (continued)

Immune-Mediated Pneumonitis

IMFINZI can cause immune-mediated pneumonitis, defined as requiring use of corticosteroids. Fatal cases have been reported. Monitor patients for signs and symptoms of pneumonitis and evaluate with radiographic imaging when suspected. Administer corticosteroids for Grade 2 or greater pneumonitis. Withhold IMFINZI for Grade 2 pneumonitis; permanently discontinue for Grade 3 or 4 pneumonitis.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, pneumonitis occurred in 5% of patients, including Grade 3 (0.8%), Grade 4 (<0.1%), and Grade 5 (0.3%) pneumonitis. Pneumonitis led to discontinuation of IMFINZI in 1.5% of the 1889 patients. In the PACIFIC study, the incidence of pneumonitis (including radiation pneumonitis) was 34%, including Grade 3 (3.4%) and Grade 5 (1.1%) pneumonitis in the IMFINZI arm. In the PACIFIC study, pneumonitis led to discontinuation of IMFINZI in 6% of patients.

Immune-Mediated Hepatitis

IMFINZI can cause immune-mediated hepatitis, defined as requiring use of corticosteroids. Fatal cases have been reported. Monitor patients for signs and symptoms of hepatitis during and after discontinuation of IMFINZI, including clinical chemistry monitoring. Administer corticosteroids for Grade 2 or higher elevations of ALT, AST, and/or total bilirubin. Withhold IMFINZI for ALT or AST greater than 3 but less than or equal to 8 times the ULN or total bilirubin greater than 1.5 but less than or equal to 5 times the ULN; permanently discontinue IMFINZI for ALT or AST greater than 8 times the ULN or total bilirubin greater than 5 times the ULN or concurrent ALT or AST greater than 3 times the ULN and total bilirubin greater than 2 times the ULN with no other cause.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, hepatitis occurred in 12% of patients, including Grade 3 (4.4%), Grade 4 (0.4%), and Grade 5 (0.2%) hepatitis. Hepatitis led to discontinuation of IMFINZI in 0.7% of the 1889 patients.

Immune-Mediated Colitis

IMFINZI can cause immune-mediated colitis, defined as requiring use of corticosteroids. Administer corticosteroids for Grade 2 or greater colitis or diarrhea. Withhold IMFINZI for Grade 2 colitis or diarrhea; permanently discontinue for Grade 3 or 4 colitis or diarrhea.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, colitis or diarrhea occurred in 18% of patients, including Grade 3 (1.0%) and Grade 4 (0.1%) colitis. Diarrhea or colitis led to discontinuation of IMFINZI in 0.4% of the 1889 patients.

Immune-Mediated Endocrinopathies

IMFINZI can cause immune-mediated endocrinopathies, including thyroid disorders, adrenal insufficiency, type 1 diabetes mellitus, and hypophysitis/hypopituitarism. Monitor patients for clinical signs and symptoms of endocrinopathies.

- **Thyroid disorders**—Monitor thyroid function prior to and periodically during treatment. Initiate hormone replacement therapy or medical management of hyperthyroidism as clinically indicated. Withhold IMFINZI for Grades 2–4 hyperthyroidism, until clinically stable. Continue IMFINZI for hypothyroidism.

  In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, hypothyroidism occurred in 11% of patients, while hyperthyroidism occurred in 7% of patients. Thyroiditis occurred in 0.9% of patients, including Grade 3 (<0.1%). Hypothyroidism was preceded by thyroiditis or hyperthyroidism in 25% of patients.
- **Adrenal insufficiency**—Administer corticosteroids as clinically indicated and withhold IMFINZI until clinically stable for Grade 2 or higher adrenal insufficiency. In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, adrenal insufficiency occurred in 0.7% of patients, including Grade 3 (<0.1%) adrenal insufficiency.
- **Type 1 diabetes mellitus**—Initiate treatment with insulin as clinically indicated. Withhold IMFINZI for Grades 2–4 type 1 diabetes mellitus, until clinically stable. In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, type 1 diabetes mellitus occurred in <0.1% of patients.
- **Hypophysitis**—Administer corticosteroids and hormone replacement as clinically indicated and withhold IMFINZI until clinically stable for Grade 2 or higher hypophysitis. Hypopituitarism leading to adrenal insufficiency and diabetes insipidus occurred in <0.1% of 1889 patients with various cancers who received IMFINZI.

Immune-Mediated Nephritis

IMFINZI can cause immune-mediated nephritis, defined as evidence of renal dysfunction requiring use of corticosteroids. Fatal cases have occurred. Monitor patients for abnormal renal function tests prior to and periodically during treatment with IMFINZI. Administer corticosteroids as clinically indicated. Withhold IMFINZI for creatinine greater than 1.5 to 3 times the ULN; permanently discontinue IMFINZI and administer corticosteroids in patients with creatinine greater than 3 times the ULN.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, nephritis (reported as any of the following: increased creatinine or urea, acute kidney injury, renal failure, decreased glomerular filtration rate, tubulointerstitial nephritis, decreased creatinine clearance, glomerulonephritis, and nephritis) occurred in 6.3% of the patients including Grade 3 (1.1%), Grade 4 (0.2%), and Grade 5 (0.1%) nephritis. IMFINZI was discontinued in 0.3% of the 1889 patients.

Immune-Mediated Dermatologic Reactions

IMFINZI can cause immune-mediated rash. Bullous dermatitis and Stevens Johnson Syndrome (SJS)/toxic epidermal necrolysis (TEN) have occurred with other products in this class. Administer corticosteroids for Grade 2 rash or dermatitis lasting for more than 1 week or for Grade 3 or 4 rash or

dermatitis. Withhold IMFINZI for Grade 2 rash or dermatitis lasting longer than 1 week or Grade 3 rash or dermatitis; permanently discontinue IMFINZI in patients with Grade 4 rash or dermatitis.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, 26% of patients developed rash or dermatitis and 0.4% of the patients developed vitiligo. Rash or dermatitis led to discontinuation of IMFINZI in 0.1% of the 1889 patients.

Other Immune-Mediated Adverse Reactions

IMFINZI can cause severe and fatal immune-mediated adverse reactions. These immune-mediated reactions may involve any organ system. While immune-mediated reactions usually manifest during treatment with IMFINZI, immune-mediated adverse reactions can also manifest after discontinuation of IMFINZI. For suspected immune-mediated adverse reactions, exclude other causes and initiate corticosteroids as clinically indicated. Withhold IMFINZI for Grade 3 immune-mediated adverse reactions, unless clinical judgment indicates discontinuation; permanently discontinue IMFINZI for Grade 4 adverse reactions.

The following clinically significant, immune-mediated adverse reactions occurred at an incidence of less than 1% each in 1889 patients who received IMFINZI: aseptic meningitis, hemolytic anemia, immune thrombocytopenic purpura, myocarditis, myositis, and ocular inflammatory toxicity, including uveitis and keratitis. Additional clinically significant immune-mediated adverse reactions have been seen with other products in this class (see Warnings and Precautions Section 5.7 of IMFINZI full Prescribing Information).

Infection

IMFINZI can cause serious infections, including fatal cases. Monitor patients for signs and symptoms of infection and treat as clinically indicated. Withhold IMFINZI for Grade 3 or 4 infection, until clinically stable.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, infections occurred in 43% of patients, including Grade 3 (8%), Grade 4 (1.9%), and Grade 5 (1.0%). In patients with Stage III NSCLC in the PACIFIC study, the most common Grade 3 or higher infection was pneumonia, which occurred in 5% of patients.

Infusion-Related Reactions

IMFINZI can cause severe or life-threatening infusion-related reactions. Monitor patients for signs and symptoms of an infusion-related reaction. Interrupt or slow the rate of infusion for Grades 1–2 infusion-related reactions; permanently discontinue for Grades 3–4 infusion-related reactions.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI, infusion-related reactions occurred in 2.2% of patients, including Grade 3 (0.3%).

Embryo-Fetal Toxicity

Based on its mechanism of action and data from animal studies, IMFINZI can cause fetal harm when administered to a pregnant woman. There are no data on the use of IMFINZI in pregnant women. Advise pregnant women of the potential risk to a fetus and advise women of reproductive potential to use effective contraception during treatment and for at least 3 months after the last dose of IMFINZI.

Lactation

There is no information regarding the presence of IMFINZI in human milk; however, because of the potential for adverse reactions in breastfed infants from IMFINZI, advise women not to breastfeed during treatment and for at least 3 months after the last dose.

Most Common Adverse Reactions

- In patients with Stage III NSCLC in the PACIFIC study (IMFINZI n=475), the most common adverse reactions (≥20% of patients) were cough (40%), fatigue (34%), pneumonitis or radiation pneumonitis (34%), upper respiratory tract infections (26%), dyspnea (25%), and rash (23%). The most common Grade 3 or 4 adverse reaction (≥3%) was pneumonia (7%).
- In patients with Stage III NSCLC in the PACIFIC study (IMFINZI n=475), discontinuation due to adverse reactions occurred in 15% of patients in the IMFINZI arm. Serious adverse reactions occurred in 29% of patients receiving IMFINZI. The most frequent serious adverse reactions (≥2% of patients) were pneumonitis or radiation pneumonitis (7%) and pneumonia (6%). Fatal pneumonitis or radiation pneumonitis and fatal pneumonia occurred in <2% of patients and were similar across arms.

The safety and effectiveness of IMFINZI have not been established in pediatric patients.

Please see Brief Summary of complete Prescribing Information on adjacent pages.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.FDA.gov/medwatch or call 1-800-FDA-1088.

References: 1. IMFINZI® (durvalumab) [Prescribing Information]. Wilmington, DE: AstraZeneca Pharmaceuticals LP; 2018. **2.** Antonia SJ, Villegas A, Daniel D, et al. Overall survival with durvalumab after chemoradiotherapy in stage III NSCLC [published online ahead of print September 25, 2018]. *N Engl J Med.* 2018. http://dx.doi.org/10.1056/NEJMoa1809697. Accessed September 25, 2018. **3.** Antonia SJ, Villegas A, Daniel D, et al. Durvalumab after chemoradiotherapy in stage III non-small-cell lung cancer. *N Engl J Med.* 2017;377(20):1919-1929.

AstraZeneca

IMFINZI®
durvalumab
Injection for Intravenous Use 50 mg/mL

IMFINZI® (durvalumab) injection, for intravenous use

Brief Summary of Prescribing Information. For complete prescribing information consult official package insert.

INDICATIONS AND USAGE

Non-Small Cell Lung Cancer

IMFINZI is indicated for the treatment of patients with unresectable Stage III non-small cell lung cancer (NSCLC) whose disease has not progressed following concurrent platinum-based chemotherapy and radiation therapy.

DOSAGE AND ADMINISTRATION

Recommended Dosage for NSCLC

The recommended dose of IMFINZI is 10 mg/kg administered as an intravenous infusion over 60 minutes every 2 weeks until disease progression, unacceptable toxicity, or a maximum of 12 months.

Dosage Modifications for Adverse Reactions

No dose reductions are recommended. Withhold or discontinue IMFINZI to manage adverse reactions as described in Table 1.

Table 1. Recommended Dosage Modifications for Adverse Reactions

Adverse Reaction	Severity[1]	Dosage Modification
Pneumonitis *[see Warnings and Precautions (5.1)]*	Grade 2	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	Grade 3 or 4	Permanently discontinue
Hepatitis *[see Warnings and Precautions (5.2)]*	For ALT or AST greater than 3 but less than or equal to 8 times the ULN or Total bilirubin greater than 1.5 but less than or equal to 5 times the ULN	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	ALT or AST greater than 8 times the ULN or total bilirubin greater than 5 times the ULN or Concurrent ALT or AST greater than 3 times the ULN and total bilirubin greater than 2 times the ULN with no other cause	Permanently discontinue
Colitis or diarrhea *[see Warnings and Precautions (5.3)]*	Grade 2	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	Grade 3 or 4	Permanently discontinue
Hyperthyroidism *[see Warnings and Precautions (5.4)]*	Grade 2-4	Withhold dose until clinically stable
Adrenal insufficiency or Hypophysitis/ Hypopituitarism *[see Warnings and Precautions (5.4)]*	Grade 2-4	Withhold dose until clinically stable
Type 1 Diabetes Mellitus *[see Warnings and Precautions (5.4)]*	Grade 2-4	Withhold dose until clinically stable
Nephritis *[see Warnings and Precautions (5.5)]*	For Creatinine greater than 1.5 to 3 times the ULN	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	For Creatinine greater than 3 times the ULN	Permanently discontinue
Rash or dermatitis *[see Warnings and Precautions (5.6)]*	Grade 2 for longer than 1 week or Grade 3	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	Grade 4	Permanently discontinue
Infection *[see Warnings and Precautions (5.8)]*	Grade 3 or 4	Withhold dose until clinically stable
Infusion-related reactions *[see Warnings and Precautions (5.9)]*	Grade 1 or 2	Interrupt or slow the rate of infusion
	Grade 3 or 4	Permanently discontinue
Other immune-mediated adverse reactions *[see Warnings and Precautions (5.7)]*	Grade 3	Withhold dose until Grade 1 or resolved and corticosteroid dose is less than or equal to prednisone 10 mg per day (or equivalent).
	Grade 4	Permanently discontinue
Persistent Grade 2 or 3 adverse reaction (excluding endocrinopathies)	Grade 2 or 3 adverse reaction that does not recover to Grade 0 or 1 within 12 weeks after last IMFINZI dose	Permanently discontinue
Inability to taper corticosteroid	Inability to reduce to less than or equal to prednisone 10 mg per day (or equivalent) within 12 weeks after the last IMFINZI dose	Permanently discontinue
Recurrent Grade 3 or 4 adverse reaction	Recurrent Grade 3 or 4 (severe or life-threatening) adverse reaction	Permanently discontinue

1 National Cancer Institute Common Terminology Criteria for Adverse Events, version 4.03.
ALT: alanine aminotransferase; AST: aspartate aminotransferase; ULN: upper limit of normal.

Preparation and Administration

Preparation

- Visually inspect drug product for particulate matter and discoloration prior to administration, whenever solution and container permit. Discard the vial if the solution is cloudy, discolored, or visible particles are observed.
- Do not shake the vial.
- Withdraw the required volume from the vial(s) of IMFINZI and transfer into an intravenous bag containing 0.9% Sodium Chloride Injection, USP or 5% Dextrose Injection, USP. Mix diluted solution by gentle inversion. Do not shake the solution. The final concentration of the diluted solution should be between 1 mg/mL and 15 mg/mL.
- Discard partially used or empty vials of IMFINZI.

Storage of Infusion Solution

- IMFINZI does not contain a preservative.
- Administer infusion solution immediately once prepared. If infusion solution is not administered immediately and needs to be stored, the total time from vial puncture to the start of the administration should not exceed:
  - 24 hours in a refrigerator at 2°C to 8°C (36°F to 46°F)
  - 4 hours at room temperature up to 25°C (77°F)
- Do not freeze.
- Do not shake.

Administration

- Administer infusion solution intravenously over 60 minutes through an intravenous line containing a sterile, low-protein binding 0.2 or 0.22 micron in-line filter.
- Do not co-administer other drugs through the same infusion line.

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Immune-Mediated Pneumonitis

IMFINZI can cause immune-mediated pneumonitis, defined as requiring use of corticosteroids. Fatal cases have been reported.

Monitor patients for signs and symptoms of pneumonitis. Evaluate patients with suspected pneumonitis with radiographic imaging. Administer corticosteroids, prednisone 1 to 2 mg per kg per day or equivalent for moderate (Grade 2) pneumonitis or prednisone 1 to 4 mg per kg per day or equivalent for more severe (Grade 3-4) pneumonitis, followed by taper. Interrupt or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, pneumonitis occurred in 5% of patients, including Grade 3 (0.8%), Grade 4 (< 0.1%) and Grade 5 (0.3%) immune-mediated pneumonitis. The median time to onset was 1.8 months (range: 1 day to 13.9 months) and the median time to resolution was 4.9 months (range: 0 days to 13.7 months).

Pneumonitis led to discontinuation of IMFINZI in 1.5% of the 1889 patients. Pneumonitis resolved in 54% of patients. Systemic corticosteroids were required in 3.5% of the 1889 patients, with 2.5% requiring high-dose corticosteroids (prednisone ≥ 40 mg per day or equivalent) and 0.1% requiring infliximab.

The incidence of pneumonitis (including radiation pneumonitis) was higher in patients in the PACIFIC study who completed treatment with definitive chemoradiation within 42 days prior to initiation of IMFINZI (34%) compared to patients in other clinical studies (2.3%) in which radiation therapy was generally not administered immediately prior to initiation of IMFINZI.

In the PACIFIC study, the incidence of Grade 3 pneumonitis was 3.4% and the incidence of Grade 5 pneumonitis was 1.1% in the IMFINZI arm. The median time to onset of pneumonitis was 1.8 months and the median duration was 2.1 months (range: 3 days to 18.7 months). Pneumonitis led to discontinuation of IMFINZI in 6% of patients. Pneumonitis resolved in 47% of patients experiencing pneumonitis. Systemic corticosteroids were required in 21% of patients, with 12% requiring high-dose corticosteroids and 0.1% requiring infliximab.

Immune-Mediated Hepatitis

IMFINZI can cause immune-mediated hepatitis, defined as requiring use of corticosteroids. Fatal cases have been reported.

Monitor patients for signs and symptoms of hepatitis, during and after discontinuation of IMFINZI, including clinical chemistry monitoring. Administer corticosteroids, prednisone 1 to 2 mg per kg per day or equivalent, followed by taper for Grade 2 or higher elevations of ALT, AST, and/or total bilirubin. Interrupt or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, hepatitis occurred in 12% of patients, including Grade 3 (4.4%), Grade 4 (0.4%) and Grade 5 (0.2%) immune-mediated hepatitis. The median time to onset was 1.2 months (range: 1 day to 13.6 months). Hepatitis led to discontinuation of IMFINZI in 0.7% of the 1889 patients. Hepatitis resolved in 49% of patients. Systemic corticosteroids were required in 2.7% of patients, with 1.7% requiring high-dose corticosteroids and 0.1% requiring mycophenolate.

Immune-Mediated Colitis

IMFINZI can cause immune-mediated colitis, defined as requiring use of corticosteroids.

Monitor patients for signs and symptoms of diarrhea or colitis. Administer corticosteroids, prednisone 1 to 2 mg per kg per day or equivalent, for moderate (Grade 2) or more severe (Grade 3-4) colitis, followed by taper. Interrupt or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, diarrhea or colitis occurred in 18% of patients, including Grade 3 (1%) and Grade 4 (0.1%) immune-mediated colitis. The median time to onset was 1.4 months (range: 1 day to 14 months). Diarrhea or colitis lead to discontinuation of IMFINZI in 0.4% of the 1889 patients. Diarrhea or colitis resolved in 78% of the patients. Systemic corticosteroids were required in 1.9% of patients, with 1% requiring high-dose corticosteroids and 0.1% requiring other immunosuppressants (e.g., infliximab, mycophenolate).

Immune-Mediated Endocrinopathies

IMFINZI can cause immune-mediated endocrinopathies, including thyroid disorders, adrenal insufficiency, type 1 diabetes mellitus and hypophysitis/hypopituitarism.

Thyroid Disorders: Monitor thyroid function prior to and periodically during treatment with IMFINZI. Initiate hormone replacement therapy or medical management of hyperthyroidism as clinically indicated. Continue IMFINZI for hypothyroidism and interrupt for hyperthyroidism based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, hypothyroidism occurred in 11% of patients and hyperthyroidism occurred in 7% of patients. Thyroiditis occurred in 0.9% of patients, including Grade 3 (< 0.1%) thyroiditis. Hypothyroidism was preceded by thyroiditis or hyperthyroidism in 25% of patients.

Adrenal Insufficiency: Monitor patients for clinical signs and symptoms of adrenal insufficiency. For Grade 2 or higher adrenal insufficiency, initiate prednisone 1 to 2 mg per kg per day or equivalent, followed by corticosteroid taper and hormone replacement as clinically indicated. Interrupt IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients who received IMFINZI, adrenal insufficiency occurred in 0.7% of patients, including Grade 3 (< 0.1%) adrenal insufficiency. Systemic corticosteroids were required in 0.4% of patients, including 0.1% of patients who required high-dose corticosteroids.

Type 1 Diabetes Mellitus: Monitor patients for hyperglycemia or other signs and symptoms of diabetes. Initiate treatment with insulin as clinically indicated. Interrupt IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients who received IMFINZI, type 1 diabetes mellitus occurred in < 0.1 % of patients. The median time to onset was 1.4 months.

Hypophysitis: For Grade 2 or higher hypophysitis, initiate prednisone 1 to 2 mg per kg per day or equivalent, followed by corticosteroid taper and hormone replacement therapy as clinically indicated. Interrupt IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

Hypopituitarism leading to adrenal insufficiency and diabetes insipidus occurred in < 0.1% of 1889 patients who received IMFINZI in clinical studies.

Immune-Mediated Nephritis

IMFINZI can cause immune-mediated nephritis defined as evidence of renal dysfunction, requirement for corticosteroids. Fatal cases have occurred.

Monitor patients for abnormal renal function tests prior to and periodically during treatment with IMFINZI. Initiate prednisone 1 to 2 mg per kg per day or equivalent, for moderate (Grade 2) or severe (Grade 3-4) nephritis, followed by taper. Interrupt or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, nephritis (reported as any of the following increased creatinine or urea, acute kidney injury, renal failure, decreased glomerular filtration rate, tubulointerstitial nephritis, decreased creatinine clearance, glomerulonephritis, and nephritis) occurred in 6.3% of patients including Grade 3 (1.1%), Grade 4 (0.2%) and Grade 5 (0.1%) immune-mediated nephritis. The median time to onset was 2 months (range: 1 day to 14.2 months). IMFINZI was discontinued in 0.3% of the 1889 patients. Nephritis resolved in 50% of patients. Systemic corticosteroids were required in 0.6% of patients, with 0.4% receiving high-dose corticosteroids.

Immune-Mediated Dermatologic Reactions

IMFINZI can cause immune-mediated rash; bullous dermatitis, Stevens Johnson Syndrome (SJS)/toxic epidermal necrolysis (TEN) have occurred with other products in this class *[see* Warnings and Precautions (5.7)*]*.

Monitor for signs and symptoms of rash. Initiate prednisone 1 to 2 mg per kg per day or equivalent, for moderate (Grade 2) rash or dermatitis lasting for more than 1 week or severe (Grade 3-4) rash or dermatitis followed by taper. Interrupt or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, 26% of patients developed rash or dermatitis and 0.4% of the patients developed vitiligo. Rash or dermatitis led to discontinuation of IMFINZI in 0.1% of the 1889 patients. Rash resolved in 62% of patients. Systemic corticosteroids were required in 2.0% of patients, including high-dose corticosteroids in 1% of patients.

Other Immune-Mediated Adverse Reactions

IMFINZI can cause severe and fatal immune-mediated adverse reactions. These immune-mediated reactions may involve any organ system. While immune-mediated reactions usually manifest during treatment with IMFINZI, immune-mediated adverse reactions can also manifest after discontinuation of IMFINZI.

For suspected Grade 2 immune-mediated adverse reactions, exclude other causes and initiate cortico-steroids as clinically indicated. For severe (Grade 3 or 4) adverse reactions, administer corticosteroids, prednisone 1 to 4 mg per kg per day or equivalent, followed by taper. Interrupt or permanently discontinue IMFINZI, based on the severity of the reaction *[see Dosage and Administration (2.3) in the full Prescribing Information]*. If uveitis occurs in combination with other immune-mediated adverse reactions, evaluate for Vogt-Koyanagi-Harada syndrome, which has been observed with other products in this class and may require treatment with systemic steroids to reduce the risk of permanent vision loss.

The following clinically significant, immune-mediated adverse reactions occurred at an incidence of less than 1% each in 1889 patients who received IMFINZI: aseptic meningitis, hemolytic anemia, immune thrombocytopenic purpura, myocarditis, myositis, and ocular inflammatory toxicity, including uveitis and keratitis *[see Adverse Reactions (6.1) in the full Prescribing Information]*. The following clinically significant, immune-mediated adverse reactions have been reported with other products in this class: bullous dermatitis, Stevens Johnson Syndrome (SJS)/toxic epidermal necrolysis (TEN), pancreatitis, systemic inflammatory response syndrome, rhabdomyolysis, myasthenia gravis, histiocytic necrotizing lymphadenitis, demyelination, vasculitis, hemolytic anemia, iritis, encephalitis, facial and abducens nerve paresis, demyelination, polymyalgia rheumatica, autoimmune neuropathy, Guillain-Barré syndrome and Vogt-Koyanagi-Harada syndrome.

Infection

IMFINZI can cause serious infections, including fatal cases.

Monitor patients for signs and symptoms of infection. For Grade 3 or higher infections, withhold IMFINZI and resume once clinically stable *[see Dosage and Administration (2.3) in the full Prescribing Information]*.

In clinical studies enrolling 1889 patients with various cancers who received IMFINZI *[see Adverse Reactions (6.1) in the full Prescribing Information]*, infections occurred in 43% of patients, including Grade 3 (8%), Grade 4 (1.9%), and Grade 5 (1.0%). In the PACIFIC study the most common Grade 3 or higher infection was pneumonia, which occurred in 5% of patients. The overall incidence of infections in IMFINZI-treated patients (56%) in the PACIFIC study was higher compared to patients in other studies (38%) in which radiation therapy was generally not administered immediately prior to initiation of IMFINZI.

Infusion-Related Reactions

IMFINZI can cause severe or life-threatening infusion-related reactions.

Monitor for signs and symptoms of infusion-related reactions. Interrupt, slow the rate of, or permanently discontinue IMFINZI based on the severity *[see Dosage and Administration (2.3) in the full Prescribing Information]*. For Grade 1 or 2 infusion-related reactions, consider using pre-medications with subsequent doses.

In clinical studies enrolling 1889 patients with various cancers *[see Adverse Reactions (6.1) in the full Prescribing Information]*, infusion-related reactions occurred in 2.2% of patients, including Grade 3 (0.3%).

Embryo-Fetal Toxicity

Based on its mechanism of action and data from animal studies, IMFINZI can cause fetal harm when administered to a pregnant woman. In animal reproduction studies, administration of durvalumab to cynomolgus monkeys from the onset of organogenesis through delivery resulted in increased premature delivery, fetal loss and premature neonatal death. Advise pregnant women of the potential risk to a fetus. Advise females of reproductive potential to use effective contraception during treatment with IMFINZI and for at least 3 months after the last dose of IMFINZI *[see Use in Specific Populations (8.1, 8.3) in the full Prescribing Information]*.

ADVERSE REACTIONS

The following adverse reactions are discussed in greater detail in other sections of the labeling.

- Immune-Mediated Pneumonitis *[see Warnings and Precautions (5.1) in the full Prescribing Information]*.
- Immune-Mediated Hepatitis *[see Warnings and Precautions (5.2) in the full Prescribing Information]*.
- Immune-Mediated Colitis *[see Warnings and Precautions (5.3) in the full Prescribing Information]*.
- Immune-Mediated Endocrinopathies *[see Warnings and Precautions (5.4) in the full Prescribing Information]*.
- Immune-Mediated Nephritis *[see Warnings and Precautions (5.5) in the full Prescribing Information]*.
- Immune-Mediated Dermatologic Reactions *[see Warnings and Precautions (5.6) in the full Prescribing Information]*.
- Other Immune-Mediated Adverse Reactions *[see Warnings and Precautions (5.7) in the full Prescribing Information]*.
- Infection *[see Warnings and Precautions (5.8) in the full Prescribing Information]*.
- Infusion-Related Reactions *[see Warnings and Precautions (5.9) in the full Prescribing Information]*.

Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The data described in the Warnings and Precautions section reflect exposure to IMFINZI in 1889 patients from the PACIFIC study (a randomized, placebo-controlled study that enrolled 475 patients with Stage III NSCLC), Study 1108 (an open-label, single-arm, multicohort study that enrolled 191 patients with urothelial carcinoma and 779 patients with various other solid tumors), and an additional open-label, single-arm trial that enrolled 444 patients with metastatic lung cancer, an indication for which durvalumab is not approved. Across all studies, IMFINZI was administered at a dose of 10 mg/kg intravenously every 2 weeks. Among the 1889 patients, 38% were exposed for 6 months or more and 18% were exposed for 12 months or more.

The data described in this section reflect exposure to IMFINZI in patients with Stage III NSCLC enrolled in the PACIFIC study.

Non-Small Cell Lung Cancer

The safety of IMFINZI in patients with Stage III NSCLC who completed concurrent platinum-based chemoradiotherapy within 42 days prior to initiation of study drug was evaluated in the PACIFIC study, a multicenter, randomized, double-blind, placebo-controlled study. A total of 475 patients received IMFINZI 10 mg/kg intravenously every 2 weeks. The study excluded patients who had disease progression following chemoradiation, with active or prior autoimmune disease within 2 years of initiation of the study or with medical conditions that required systemic immunosuppression *[see Clinical Studies (14.2) in the full Prescribing Information]*.

The study population characteristics were: median age of 64 years (range: 23 to 90), 45% age 65 years or older, 70% male, 69% White, 27% Asian, 75% former smoker, 16% current smoker, and 51% had WHO performance status of 1. All patients received definitive radiotherapy as per protocol, of which 92% received a total radiation dose of 54 Gy to 66 Gy. The median duration of exposure to IMFINZI was 10 months (range: 0.2 to 12.6).

IMFINZI was discontinued due to adverse reactions in 15% of patients. The most common adverse reactions leading to IMFINZI discontinuation were pneumonitis or radiation pneumonitis in 6% of patients. Serious adverse reactions occurred in 29% of patients receiving IMFINZI. The most frequent serious adverse reactions reported in at least 2% of patients were pneumonitis or radiation pneumonitis (7%) and pneumonia (6%). Fatal pneumonitis or radiation pneumonitis and fatal pneumonia occurred in < 2% of patients and were similar across arms. The most common adverse reactions (occurring in ≥ 20% of patients) were cough, fatigue, pneumonitis or radiation pneumonitis, upper respiratory tract infections, dyspnea and rash.

Table 4 summarizes the adverse reactions that occurred in at least 10% of patients treated with IMFINZI.

Table 4. Adverse Reactions Occurring in ≥ 10% Patients in the PACIFIC Study

	IMFINZI N=475		Placebo[1] N=234	
Adverse Reaction	All Grades (%)	Grades 3-4 (%)	All Grades (%)	Grades 3-4 (%)
Respiratory, Thoracic and Mediastinal Disorders				
Cough/Productive Cough	40	0.6	30	0.4
Pneumonitis[2]/Radiation Pneumonitis	34	3.4	25	3.0
Dyspnea[3]	25	1.5	25	2.6
Gastrointestinal Disorders				
Diarrhea	18	0.6	19	1.3
Abdominal pain[4]	10	0.4	6	0.4
Endocrine Disorders				
Hypothyroidism[5]	12	0.2	1.7	0
Skin and Subcutaneous Tissue Disorders				
Rash[6]	23	0.6	12	0
Pruritus[7]	12	0	6	0
General Disorders				
Fatigue[8]	34	0.8	32	1.3
Pyrexia	15	0.2	9	0
Infections				
Upper respiratory tract infections[9]	26	0.4	19	0
Pneumonia[10]	17	7	12	6

1 The PACIFIC study was not designed to demonstrate statistically significant difference in adverse reaction rates for IMFINZI, as compared to placebo, for any specific adverse reaction listed in Table 4
2 includes acute interstitial pneumonitis, interstitial lung disease, pneumonitis, pulmonary fibrosis
3 includes dyspnea and exertional dyspnea
4 includes abdominal pain, abdominal pain lower, abdominal pain upper, and flank pain
5 includes autoimmune hypothyroidism and hypothyroidism
6 includes rash erythematous, rash generalized, rash macular, rash maculopapular, rash papular, rash pruritic, rash pustular, erythema, eczema, rash and dermatitis
7 includes pruritus generalized and pruritus
8 includes asthenia and fatigue
9 includes laryngitis, nasopharyngitis, peritonsillar abscess, pharyngitis, rhinitis, sinusitis, tonsillitis, tracheobronchitis, and upper respiratory tract infection
10 includes lung infection, pneumocystis jirovecii pneumonia, pneumonia, pneumonia adenoviral, pneumonia bacterial, pneumonia cytomegaloviral, pneumonia haemophilus, pneumonia klebsiella, pneumonia necrotising, pneumonia pneumococcal, and pneumonia streptococcal

Other adverse reactions occurring in less than 10% of patients treated with IMFINZI were dysphonia, dysuria, night sweats, peripheral edema, and increased susceptibility to infections.

Table 5 summarizes the laboratory abnormalities that occurred in at least 20% of patients treated with IMFINZI.

Table 5. Laboratory Abnormalities Worsening From Baseline Occurring in ≥ 20% of Patients in the PACIFIC Study

	IMFINZI		Placebo	
Laboratory Abnormality	**All Grades[1] (%)[2]**	**Grade 3 or 4 (%)**	**All Grades[1] (%)[2]**	**Grade 3 or 4 (%)**
Chemistry				
Hyperglycemia	52	8	51	8
Hypocalcemia	46	0.2	41	0
Increased ALT	39	2.3	22	0.4
Increased AST	36	2.8	21	0.4
Hyponatremia	33	3.6	30	3.1
Hyperkalemia	32	1.1	29	1.8
Increased GGT	24	3.4	22	1.7
Hematology				
Lymphopenia	43	17	39	18

1 Graded according to NCI CTCAE version 4.0
2 Each test incidence is based on the number of patients who had both baseline and at least one on-study laboratory measurement available: IMFINZI (range: 464 to 470) and placebo (range: 224 to 228)

Immunogenicity

As with all therapeutic proteins, there is a potential for immunogenicity. The detection of antibody formation is highly dependent on the sensitivity and specificity of the assay. Additionally, the observed incidence of antibody (including neutralizing antibody) positivity in an assay may be influenced by several factors including assay methodology, sample handling, timing of sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies to durvalumab to the incidence of antibodies to other products may be misleading.

Due to the limitations in assay performance, the incidence of antibody development in patients receiving IMFINZI may be underestimated. Of 1570 patients who were treated with IMFINZI 10 mg/kg every 2 weeks and evaluable for the presence of anti-drug antibodies (ADAs), 45 (2.9%) patients tested positive for treatment-emergent ADAs. The development of treatment-emergent ADA against durvalumab appears to have no clinically relevant effect on its pharmacokinetic profile. There are insufficient numbers of patients with ADA to determine whether ADA alters the safety or efficacy of durvalumab.

USE IN SPECIFIC POPULATIONS

Pregnancy

Risk summary

Based on its mechanism of action and data from animal studies, IMFINZI can cause fetal harm when administered to a pregnant woman *[see Clinical Pharmacology (12.1) in the full Prescribing Information]*. There are no data on the use of IMFINZI in pregnant women.

In animal reproduction studies, administration of durvalumab to pregnant cynomolgus monkeys from the confirmation of pregnancy through delivery resulted in an increase in premature delivery, fetal loss and premature neonatal death *(see Data)*. Human immunoglobulin G1 (IgG1) is known to cross the placental barrier; therefore, durvalumab has the potential to be transmitted from the mother to the developing fetus. Apprise pregnant women of the potential risk to a fetus.

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data

Animal Data

As reported in the literature, the PD-1/PD-L1 pathway plays a central role in preserving pregnancy by maintaining maternal immune tolerance to the fetus. In mouse allogeneic pregnancy models, disruption of PD-L1 signaling was shown to result in an increase in fetal loss. The effects of durvalumab on prenatal and postnatal development were evaluated in reproduction studies in cynomolgus monkeys. Durvalumab was administered from the confirmation of pregnancy through delivery at exposure levels approximately 6 to 20 times higher than those observed at the recommended clinical dose of 10 mg/kg (based on AUC). Administration of durvalumab resulted in premature delivery, fetal loss (abortion and stillbirth) and increase in neonatal deaths. Durvalumab was detected in infant serum on postpartum Day 1, indicating the presence of placental transfer of durvalumab. Based on its mechanism of action, fetal exposure to durvalumab may increase the risk of developing immune-mediated disorders or altering the normal immune response and immune-mediated disorders have been reported in PD-1 knockout mice.

Lactation

Risk Summary

There is no information regarding the presence of durvalumab in human milk, the effects on the breastfed infant, or the effects on milk production. Human IgG1 is excreted in human milk. Durvalumab was present in the milk of lactating cynomolgus monkeys and was associated with premature neonatal death *(see Data)*.

Because of the potential for adverse reactions in breastfed infants, advise women not to breastfeed during treatment with IMFINZI and for at least 3 months after the last dose.

Data

In lactating cynomolgus monkeys, durvalumab was present in breast milk at about 0.15% of maternal serum concentrations after administration of durvalumab from the confirmation of pregnancy through delivery at exposure levels approximately 6 to 20 times higher than those observed at the recommended clinical dose of 10 mg/kg (based on AUC). Administration of durvalumab resulted in premature neonatal death.

Females and Males of Reproductive Potential

Contraception

Females

Based on its mechanism of action and data from animal studies, IMFINZI can cause fetal harm when administered to a pregnant woman *[see Use in Specific Populations (8.1) in the full Prescribing Information]*. Advise females of reproductive potential to use effective contraception during treatment with IMFINZI and for at least 3 months following the last dose of IMFINZI.

Pediatric Use

The safety and effectiveness of IMFINZI have not been established in pediatric patients.

Geriatric Use

Of the 476 patients treated with IMFINZI in the PACIFIC study, 45% were 65 years or older, while 7.6% were 75 years or older. No overall differences in safety or effectiveness were observed between patients 65 years or older and younger patients. The PACIFIC study did not include sufficient numbers of patients aged 75 years and over to determine whether they respond differently from younger patients.

OVERDOSAGE

There is no information on overdose with IMFINZI.

PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Medication Guide).

Inform patients of the risk of immune-mediated adverse reactions that may require corticosteroid treatment and interruption or discontinuation of IMFINZI, including:

- Pneumonitis: Advise patients to contact their healthcare provider immediately for any new or worsening cough, chest pain, or shortness of breath *[see Warnings and Precautions (5.1) in the full Prescribing Information]*.
- Hepatitis: Advise patients to contact their healthcare provider immediately for jaundice, severe nausea or vomiting, pain on the right side of abdomen, lethargy, or easy bruising or bleeding *[see Warnings and Precautions (5.2) in the full Prescribing Information]*.
- Colitis: Advise patients to contact their healthcare provider immediately for diarrhea, blood or mucus in stools, or severe abdominal pain *[see Warnings and Precautions (5.3) in the full Prescribing Information]*.
- Endocrinopathies: Advise patients to contact their healthcare provider immediately for signs or symptoms of hypothyroidism, hyperthyroidism, adrenal insufficiency, type 1 diabetes mellitus, or hypophysitis *[see Warnings and Precautions (5.4) in the full Prescribing Information]*.
- Nephritis: Advise patients to contact their healthcare provider immediately for signs or symptoms of nephritis *[see Warnings and Precautions (5.5) in the full Prescribing Information]*.
- Dermatological Reactions: Advise patients to contact their healthcare provider immediately signs or symptoms of severe dermatological reactions *[see Warnings and Precautions (5.6) in the full Prescribing Information]*.
- Other Immune-Mediated Adverse Reactions: Advise patients to contact their healthcare provider immediately for signs or symptoms of aseptic meningitis, thrombocytopenic purpura, myocarditis, hemolytic anemia, myositis, uveitis and keratitis *[see Warnings and Precautions (5.7) in the full Prescribing Information]*.
- Infection: Advise patients to contact their healthcare provider immediately for infection *[see Warnings and Precautions (5.8) in the full Prescribing Information]*.
- Infusion-Related Reactions: Advise patients to contact their healthcare provider immediately for signs or symptoms of infusion-related reactions *[see Warnings and Precautions (5.9) in the full Prescribing Information]*.
- Embryo-Fetal Toxicity: Advise females of reproductive potential that IMFINZI can cause harm to a fetus and to inform their healthcare provider of a known or suspected pregnancy *[see Warnings and Precautions (5.10) and Use in Specific Populations (8.1, 8.3) in the full Prescribing Information]*.

  Advise females of reproductive potential to use effective contraception during treatment and for at least 3 months after the last dose of IMFINZI *[see Use in Specific Populations (8.3) in the full Prescribing Information]*.
- Lactation: Advise female patients not to breastfeed while taking IMFINZI and for at least 3 months after the last dose *[see Warnings and Precautions (5.10) and Use in Specific Populations (8.2) in the full Prescribing Information]*.

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Clinical Trials session presents findings from five new studies

By Tyler Beck, PhD, Lisa Braverman and Heather McGee, MD, PhD, Icahn School of Medicine at Mount Sinai

This year's Clinical Trials session included five groundbreaking studies from leaders in clinical radiation oncology research, providing attendees with updates on trials that could have an impact on standard of care for patients for years to come.

Jessika Contreras, MD, from Barnes-Jewish Hospital in St. Louis, presented evidence that elimination of post-operative radiation to the pathologically node negative (pN0) neck can vastly improve patient quality of life without significantly increasing local control. This could suggest a major shift in the standard of care for patients with squamous cell carcinoma of the head and neck, eliminating radiation treatment that can lead to side effects. Such a radical change would not be without controversy, as evidenced by the presentation's discussant, Alexander Lin, MD, from the University of Pennsylvania. Dr. Lin pointed out that, while there were 72 patients in the study, they represented a myriad of primary tumor sites, and were representative of different biological states (such as HPV+ versus HPV- patients). Both Drs. Contreras and Lin acknowledged that it will be important to gather more data to support this new approach to the treatment of head and neck squamous cell carcinoma before it can be widely adopted in practice.

John Staffurth, MD, MB, from Cardiff University, gave an update on the progress of the Conventional or Hypofractionated High Dose Intensity Modulated Radiotherapy for Prostate Cancer (CHHiP) trial. The five-year findings of this noninferiority trial show evidence that hypofractionation (60 Gray in 20 fractions or 57 Gray in 19 fractions) reduces long-term sexual side effects with no significant effect on bowel or urinary side effects in patients with localized prostate cancer versus a traditional treatment schedule (74 Gray in 37 fractions). These results, obtained through patient-reported outcomes surveys, confirmed the data from the first two years of the trial, suggesting that hypofractionated treatment could be a viable option for improving quality of life for localized prostate cancer patients.

In a randomized trial studying the use of radiation after surgical excision for "good risk" ductal carcinoma in-situ (DCIS), Beryl McCormick, MD, FASTRO, and her colleagues at Memorial Sloan Kettering Cancer Center compared whole breast radiation therapy with no radiation in "good risk" patients. The objective was to assess the role of radiation therapy in decreasing local failure and preventing the need for mastectomy. Endpoints were local failure, contralateral breast failure and salvage mastectomy. Median follow-up for the more than 600 patients accrued was 12.4 years. While tamoxifen use was initially required in the protocol, it was made optional in 2001, with final tamoxifen use at 58 percent in the RT group and 66 percent in the non-RT group. Local failure in the ipsilateral breast was 11.4 percent for the non-irradiated group and 2.8 percent for the radiated group, with no statistical difference between the groups for contralateral breast events. More toxicities were reported in the radiated arm, but late radiation toxicity was low. In the defined "good risk" DCIS population, the addition of whole breast radiation following breast conservation surgery significantly reduced risk of any local recurrence. While this data provides evidence that irradiating these patients could reduce local failure, the authors noted that information should be used to inform a meaningful patient-doctor discussion of the risks, benefits and patients' degree of comfort.

Summaries of the other two abstracts presented during the Clinical Trials session can be found on page 3 in Press Highlights. For more details on all of the studies presented, view or purchase the 2018 Annual Meeting Virtual Meeting at www.astro.org/virtualmeeting.

And the winners of the ROI 5K are ....

By Janet Hedrick

The results are in for the ninth annual Running Strong 5K Run for the Future to Benefit the Radiation Oncology Institute (ROI). On Monday morning, more than 230 attendees gathered at the Arneson River Theatre on the San Antonio River Walk to run or walk the 5K course along the renowned path on the river. Runners traveled along the River Walk and some parts of the historic Mission Trail for a memorable course that weaved through the city of San Antonio.

"The ROI 5K is a staple event that makes ASTRO special. It shows our commitment to supporting others in our field, celebrating wellness and building new and lifelong friendships." said 2017 and 2018 race winner Benjamin Li, MD, MBA.

Individual attendees competed for the titles of fastest male and female runners. Equally important, many race attendees set new personal best times, pushed beyond their limits, met new acquaintances and had fun in the process.

Congratulations to Ben Li, MD, of University of California, San Francisco who won the title of fastest male runner for the second year in a row with a time of 15:37 and Bree Eaton, MD, of Winship Cancer Institute of Emory University who won the title of fastest female runner with a time of 20:45.

Emory University pulled out the win for the second consecutive year with an average time of 17:42 and secured a $1,000 donation for the institution's scholarship fund. Eight corporate teams participated in the Corporate Challenge. Elekta won the esteemed title and trophy for the corporate group of participants with an average time of 21.13.

Radiation Business Solutions (RBS), host of the race for the ninth year, established the Running Strong 5K Run for the Future to Benefit the ROI to support the important research and education programs funded by the Institute. Multiple companies generously help sponsor the event annually. This year's sponsors included Elekta and Varian at the Hope Sponsor Level ($10,000), Accuray at the Compassion Sponsor Level ($5,000) and Northwest Medical Physics Center and Tier3MD at the Hatch Show Print Level ($1,500).

"The event brings together industry, academic institutions and ASTRO members to support groundbreaking research in a fun and unique way." said ROI Vice President Colleen A.F. Lawton, MD, FASTRO. "We are so grateful to RBS for hosting this event each year and to the companies that help sponsor it."

Sponsorships and registration fees from the 5K go directly to the ROI to fund research for the field of radiation oncology.

If you weren't able to participate in the race, you can still join the effort to support research and education for the field of radiation oncology. Stop by Booth 1540 in the Innovation and Solution Showcase to make your 2018 donation to the ROI.

Virtual collection traces history of ASTRO's journals

By Lisa Braverman, Managing Editor, Red Journal

In honor and celebration of ASTRO's 60th anniversary, the Editors-in-Chief of the Red Journal, *Practical Radiation Oncology* and *Advances in Radiation Oncology* have compiled a special collection of articles entitled, "ASTRO at 60: The Evolution of Radiation Oncology." The collection, which can be found at www.elsevier.com/health/journals/astro-at-60, charts the development of the field alongside the growth of ASTRO and its journals.

The special collection begins with a brief overview of the scientific focuses that have driven radiation oncology research over the last six decades. Each decade of published research is attached to a corresponding theme, guiding readers from 1970s Red Journal articles focused on combined modality therapy and organ preservation through recent work in *Advances* about big data, social media and disparities in care.

Journal editors Anthony Zietman, MD, FASTRO, W. Robert Lee, MD, FASTRO, and Robert Miller, MD, FASTRO, closely collaborated to curate the articles. Top-cited research, according to Scopus and Crossref, was included in the collection. Speaking to the importance of the collection, Dr. Zietman said, "Sometimes we forget how far the specialty has come in the 60 years since it took its own path independent of radiology. Reviewing this collection of papers, one can appreciate the amazing conceptual leaps and technological advances that have made our practice what it is today."

In addition to highlighting the science that has energized the field since the 1970s, "ASTRO at 60" provides a glimpse into how the journals fit with the organization's history and mission. Advancing the field of radiation oncology by their very nature, the journals have reported the latest outcomes and clinical trials research since the inception of the Red Journal. The 2000s have seen the important additions of *Practical Radiation Oncology (PRO)* and *Advances in Radiation Oncology* to ASTRO's publishing program.

Dr. Lee noted that *PRO* focuses on patient safety, quality measurement and practice improvement. The practice-oriented journal houses ASTRO guidelines and guideline updates, serving as a key publication for researchers and practitioners continually seeking to improve patient outcomes and the safe and effective delivery of radiation therapy.

Advances – aptly-named – gazes to the future. Dr. Miller addressed the goals of the open access journal: "ASTRO's *Advances* is looking forward to publishing how our membership addresses the truly great challenges facing radiation oncology in the 21st century – exploring the possibilities presented by big data, implementing evolving indications for immunotherapy, expanding how we communicate using social media in medicine, and addressing long-standing disparities in care delivery and underrepresentation of women and minorities in positions of leadership in radiation oncology. *Advances* provides a freely accessible, public platform, open to our members, to society at large, and to our patients and their caregivers, to publish, read and solve these issues."

All three Editors-in-Chief will be available in the Innovation Hub Sunday through Tuesday to discuss the collection and answer questions about the journals they manage. Don't miss the chance to contribute to the evolution of radiation oncology research by submitting your work to an ASTRO journal today!

Scan the QR code to access this historical collection or visit: www.elsevier.com/health/journals/astro-at-60

ASTRO's 2018 Gold Medalists: Patricia Eifel, MD, FASTRO, David Jaffray, PhD, and Ralph Weichselbaum, MD

By Leah Kerkman Fogarty

ASTRO awards its annual gold medal to individuals who have made outstanding lifetime contributions in the field of radiation oncology. In the award's 42nd consecutive year, the new awardees join an exclusive class of 84 Gold Medalists selected over the decades from the Society's more than 10,000 members.

Please join ASTRO in celebrating these leaders at an awards ceremony at ASTRO's 60th Annual Meeting on Tuesday, October 23 from 10:15 a.m. until 11:30 a.m. in the Stars at Night Ballroom.

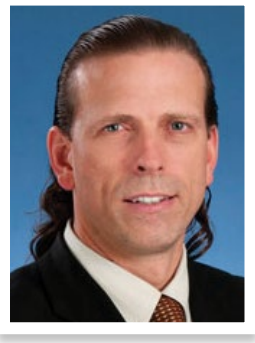
Patricia Eifel, MD, FASTRO, is known by many names: clinician, researcher, educator, author and mentor. But her name is most significantly synonymous with excellence in the field of gynecologic radiation oncology. For 30 years, she has been on staff at MD Anderson Cancer Center in Houston, including 20 years as the chief of gynecologic oncology service. Prior to her time there, she was the first woman hired as a faculty member at the Joint Center for Radiation Therapy at Harvard Medical School in 1982.

Internationally, Dr. Eifel is a sought-after speaker and educator. She delivered the ASTRO Refresher Course on cervical cancer for 15 years. She has written 68 book chapters and edited or authored three books, most recently Gynecologic Radiation Therapy: A Practical Guide, with Ann Klopp, MD. She has given 165 invited lectures nationally and internationally—from Kyoto to Cape Town to Kauai, Hawaii.

As a researcher, Dr. Eifel is both prolific and meticulous. She has published 180 articles in the field of radiation oncology. Her clinical database, which documents and analyzes the outcomes of thousands of patients treated with radiation therapy, is considered one of the most extensive in the field. This goldmine of data has led to many observations that have influenced clinical practice and trial designs around the world.

Dr. Eifel was lead author on the germinal study demonstrating that the addition of chemotherapy to radiation therapy improved survival for women with cervical cancer. The results of this study led to a new standard of care for cervical cancer. The resulting article, published in the *Journal of Clinical Oncology,* is one of the most widely cited in the field.

Her contributions to the field have gone beyond the clinic and the lab—as an ASTRO member since 1983, Dr. Eifel served as chair of the board of directors in 2008-2009. During her years on the board, ASTRO built a lobbying effort against self-referral. Also under her tenure, the Radiation Oncology Institute (ROI) was founded, ASTRO successfully lobbied against proposed cuts in Medicare reimbursement and the guidelines committees expanded.



David Jaffray, PhD, a leading medical physicist, is known for his innovation, leadership and scholarship. The head of the radiation physics department at Princess Margaret Cancer Centre in Toronto, Dr. Jaffray wears many additional hats—as the director of the Spatio-Temporal Targeting and Amplification of Radiation Response (STTARR) Innovation Centre; as the director of the Techna Institute for the Advancement of Technology for Health in the University Health Network; and as the executive vice president of technology and innovation, also with the University Health Network.

His most well-known contribution to the field is the development of the kilovoltage cone-beam CT (CBCT) for image-guided radiotherapy (IGRT). This technology revolutionized the field and changed the way patients are treated. CBCT-based IGRT significantly reduced margins, which led to a reduction of normal tissue toxicity. This change enabled the growth of stereotactic body radiation therapy to treat cancer—all due to the development of CBCT, which Dr. Jaffray led.

Dr. Jaffray's work on CBCT has resulted in multiple patents and licenses. The original paper by Dr. Jaffray on the development of CBCT is one of the most highly cited papers in radiation oncology, with more than 1,200 citations. The increased use of IGRT meant more research was needed to test outcomes, so Dr. Jaffray developed a small-animal image-guided irradiator, which is indispensable for the field of radiobiology research.

With nearly 250 peer-reviewed publications and more than 300 invited lectures, Dr. Jaffray's extensive CV reflects the impact his work has had on the field of radiation oncology. He has been awarded the major awards in the field of medical physics, including the Sylvia Sorkin-Greenfield Award, the Farrington Daniels Award and the Sylvia Fedoruk Award.

Ralph Weichselbaum, MD, is responsible for several important advances in the field of radiation oncology. He was one of the first investigators to recognize that radiation can activate signal transduction processes that result in activation of the immediate early genes and cytokine genes. He and his colleagues were among the first groups to systematically study multiagent chemotherapy and radiotherapy combinations in head and neck cancer.

He has been credited, along with colleague Samuel Hellman, MD, with describing the oligometastatic state. In 1995, the pair published the germinal *Journal of Clinical Oncology* article that posited there was a state in between a few and many metastases, which they termed oligometastasis. They further argued that these oligometastases could be successfully treated with high-dose radiation or surgery.

He is the Daniel K. Ludwig Distinguished Service Professor and Chair of the Department of Radiation and Cellular Oncology at the University of Chicago and the co-director of the Ludwig Center for Metastasis Research. With more than 850 published articles, Dr. Weichselbaum's scientific investigations have run the gamut from radiobiology, radiochemistry, molecular biology, virology, translational science, medical utility theory, clinical research, anti-angiogenesis, immunology, the pathophysiology and molecular signature to predict metastatic state and new methods to inhibit the metastatic process. As a result of investigating the oligometastatic state and the systemic effects of ablative radiotherapy, Dr. Weichselbaum's research has focused on ways to combine radiation therapy with immunotherapy—using radiation to activate the immune system to attack cancer cells. This concept is now being studied in clinical trials.

Earlier this year, the American Society of Clinical Oncology honored him with the David A. Karnofsky Memorial Award and Lecture—one of three radiation oncologists to receive this award. He is one of 12 Donald K. Ludwig professors and the only radiation oncologist. He is a member of the Association of American Physicians and the National Academy of Medicine. He has also been identified as the most cited radiation oncologist of the past decade.

Be sure to join us for a special session with three past Gold Medalists to celebrate ASTRO's 60th year on Wednesday at 9:15 a.m. in the Stars at Night Ballroom. Sarah S. Donaldson, MD, FASTRO, Stanford University; Carlos A. Perez, MD, FASTRO, Washington University (St. Louis) School of Medicine; and Lester J. Peters, MD, FASTRO, MD Anderson Radiation Oncology and Peter MacCallum Cancer Centre, will share their perspectives on the changes radiation oncology has experienced over the years and their predictions about the future.

2018 ASTRO Fellows recognized at Awards Ceremony Tuesday

ASTRO has selected 35 distinguished members to receive the ASTRO Fellow (FASTRO) designation. The 2018 class of Fellows will be recognized during an awards ceremony held Tuesday in the Stars at Night Ballroom at 10:15 a.m.

The ASTRO Fellows Program recognizes individuals who have made significant contributions to radiation oncology and the Society through research, education, patient care and/or service to the field. Significant service to ASTRO is a prerequisite for consideration. Since its inception in 2006, the FASTRO designation has been awarded to just 327 of ASTRO's more than 10,000 members worldwide.

The 2018 Fellows are:

- Søren Bentzen, DSc, PhD, University of Maryland School of Medicine, Baltimore
- Jeffrey C. Buchsbaum, MD, PhD, AM, National Cancer Institute, Rockville, Maryland
- Paul M. Busse, MD, PhD, Massachusetts General Hospital, Harvard Medical School, Boston
- Arnab Chakravarti, MD, The Ohio State University College of Medicine/Arthur G. James Cancer Hospital, Columbus, Ohio
- Joe Y. Chang, MD, PhD, The University of Texas MD Anderson Cancer Center, Houston
- Peter Y. Chen, MD, Beaumont Health System, Oakland University William Beaumont School of Medicine, Bloomfield Hills, Michigan
- Jason Chia-Hsien Cheng, MD, MS, PhD, National Taiwan University College of Medicine and Hospital, Taipei, Taiwan
- Indrin J. Chetty, PhD, Henry Ford Health System, Detroit
- Benjamin W. Corn, MD, Shaare Zedek Medical Center, Jerusalem
- Iris C. Gibbs, MD, Stanford Medicine, Stanford, California
- David Gius, MD, PhD, Northwestern University Feinberg School of Medicine, Chicago
- Eleanor E. R. Harris, MD, Case Western Reserve University and University Hospitals, Cleveland
- Mark D. Hurwitz, MD, Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia
- Reshma Jagsi, MD, PhD, University of Michigan, Ann Arbor, Michigan
- Ashesh B. Jani, MD, Emory University, Atlanta
- John A. Kalapurakal, MD, Northwestern University, Chicago
- Matthew S. Katz, MD, Radiation Oncology Associates PA, Lowell, Massachusetts
- Sameer Keole, MD, Mayo Clinic, Phoenix
- Feng-Ming Kong, MD, PhD, Case Western Reserve University, Cleveland
- Zhongxing Liao, MD, The University of Texas MD Anderson Cancer Center, Houston
- Mitchell Machtay, MD, University Hospitals Cleveland Medical Center, Cleveland
- Catherine Park, MD, University of California San Francisco, San Francisco
- Shilpen Patel, MD, Grail, Menlo Park, California
- Robert A. Price Jr., PhD, Fox Chase Cancer Center, Philadelphia
- David Raben, MD, University of Colorado Denver School of Medicine, Aurora, Colorado
- Hui-Kuo G. Shu, MD, PhD, Emory University, Atlanta
- Berend J. Slotman, MD, PhD, Amsterdam University Medical Center, Amsterdam
- Robert Timmerman, MD, University of Texas Southwestern Medical Center, Dallas
- Gregory M. M. Videtic, MD, CM, Cleveland Clinic, Cleveland
- Bhadrasain Vikram, MD, National Cancer Institute, Bethesda, Maryland
- Stephanie E. Weiss, MD, Fox Chase Cancer Center, Philadelphia

- Gayle E. Woloschak, PhD, Northwestern University, Chicago
- Min Yao, MD, PhD, University Hospitals Cleveland Medical Center, Cleveland
- Ellen D. Yorke, PhD, Memorial Sloan Kettering Cancer Center, New York
- Weining (Ken) Zhen, MD, University of Nebraska Medical Center, Omaha, Nebraska

2017 ASTRO Fellow Kevin Camphausen, MD, Radiation Oncology Branch, National Cancer Institute, Bethesda, Maryland, will also be recognized at the ceremony.

INDUSTRY-EXPERT THEATERS

This activity allows companies to present their noteworthy, new products and services through live presentations. Seating is available on a first-come, first-serve basis. The Industry-Expert Theater content and views expressed therein 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. Otherwise, food may be available for purchase prior to the start of an event in the ASTRO Bistro and concession areas.

Theaters 1 and 2 are located in the Innovation Hub in the Innovation and Solution Showcase (Exhibit Hall). Room 216 A/B is located on the Meeting Level.

Tuesday, October 23

Theater 2, Innovation Hub

SGRT: Advances in Accuracy and Improved Patient Experience
10:15 a.m. - 11:15 a.m.
Company: Vision RT Ltd.

Theater 1, Innovation Hub

MRI-Guided Radiotherapy Clinical Outcomes: A Summary of Prospective Trials
12:30 p.m. - 1:30 p.m.
Company: ViewRay

Jessica Donington, MD, MS, named 2018 ASTRO Honorary Member

Thoracic surgeon and professor at the University of Chicago Jessica Donington, MD, MS, has been selected as the 2018 ASTRO Honorary Member. She will be presented with the honor during an awards ceremony on Tuesday, from 10:15 a.m. to 11:30 a.m., in the Stars at Night Ballroom.

Honorary membership is the highest honor that ASTRO bestows upon cancer physicians and researchers who do not qualify for ASTRO membership—namely, those outside of the specialties of radiation oncology, radiobiology or medical physics. ASTRO Honorary Members must have made significant contributions to the specialty of radiation oncology.

Dr. Donington has long supported collaborations between thoracic surgeons and radiation oncologists to provide lung cancer patients with the best care. As one of two surgeons on the guideline committee, she was a key contributor to the recent ASTRO clinical practice statement on stereotactic body radiotherapy (SBRT) for early stage non-small cell lung cancer, released in 2017.

Dr. Donington has also been involved in ASTRO as a member of the steering committee for the 2017 Multidisciplinary Thoracic Cancers Symposium and is currently serving as co-chair of the 2019 symposium. She has participated in several ASTRO Annual Meetings as a speaker and attendee.

She recently became chief of general thoracic surgery and professor at the University of Chicago. From 2007 to 2018, she was an attending surgeon at New York University Langone Medical Center and associate professor at the NYU School of Medicine.

Prior to her time at NYU, Dr. Donington was at Stanford, where she collaborated with Quynh-Thu Le, MD, FASTRO, on a dose-escalation lung SBRT trial. That trial, published in the *Journal of Thoracic Oncology* in 2006, was one of the earliest lung SBRT trials in the United States evaluating single fraction SBRT in a phase I trial.

She has been a member of the NRG/RTOG Thoracic Malignancy committee for many years, serving since 2015 as the thoracic surgery co-chair for NRG/RTOG 0839. She has led or co-authored more than 90 papers, written 19 textbook chapters and made 79 presentations.

She has been invited to author multiple clinical guidelines in clinical oncology, including ASTRO's, and was appointed to the editorial boards of several thoracic oncology journals and scientific advisory boards of multiple lung cancer foundations. ASTRO is honored to welcome Dr. Donington as a member of our Society.

ASTRO supports patients through Annual Survivor Circle Awards and Grants

Two Texas charities and two Texas cancer survivors are recognized through the Survivor Circle program

By Leah Kerkman Fogarty

Each year, ASTRO awards the Survivor Circle Award to cancer survivors and the Survivor Circle Grants to patient support organizations. Please stop by the Main Lobby, Street Level, at the Ask ASTRO booth to learn more about this year's Survivor Circle recipients.

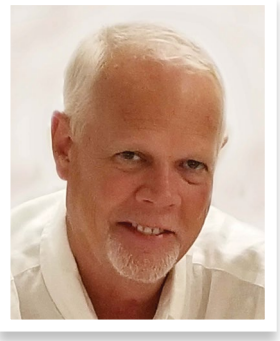
Survivor Circle Grants

Two Texas-based nonprofits, the Light and Salt Association and Candlelighters of El Paso, have been named the recipients of the ASTRO 2018 Survivor Circle grants. Each organization will receive a $10,000 grant to support their programs for those who have been affected by cancer.

Candlelighters of El Paso was formed in 1978 as an informal support group for parents of children with cancer. Candlelighters' current continuum of care is offered in three main areas: emergency financial assistance, psychosocial programs and therapeutic services. **The Light and Salt Association** aims to assist the vulnerable Asian-American community in the greater Houston area through quality care and services, promoting healthy living and fostering a sense of community.

Survivor Circle Awards

For only the second time, two survivors—not one—were selected to receive the ASTRO Survivor Circle Award this year. **Susan Rafte**, a Houston breast cancer survivor, will be honored at an award ceremony during ASTRO's 60th Annual Meeting in San Antonio. The second recipient, **William Fults**, will be posthumously awarded the honor.



The ASTRO Survivor Circle Award is an annual recognition of cancer survivors who have dedicated their time and energy in service and support of their local communities. Honorees are selected from the community in which ASTRO holds its Annual Meeting, where awardees are presented with the honor, along with $1,000.

The Survivor Circle award and grants are made possible through generous donations from exhibiting companies that participate in the Passport Program. This year's Passport Program participants are: Augmenix, Blue Earth Diagnostics, CIVCO, Galera Therapeutics, Hitachi, Ltd., Mevion, Nanobiotix, Sirtex, UPMC Hillman Cancer Center, Vertual, Ltd., and Vision RT.

Annual Business Meeting focuses on how ASTRO has implemented strategic plan

ASTRO leadership will take advantage of today's Annual Business Meeting luncheon to update members about how the organization has undertaken new initiatives aimed at increasing the profile of radiation oncology—one of the focal points of the strategic plan launched in 2017. All ASTRO voting members (Active, Affiliate and International members) should plan to attend the Business luncheon today, immediately following the Awards Ceremony in Hemisfair Ballroom 3 on the Ballroom Level.

First, ASTRO Chief Executive Officer Laura I. Thevenot will go over the political landscape of health care, including health care cost drivers and the potential for reform of the Affordable Care Act. She will also give an overview of the results from a patient survey of 403 people who underwent radiation therapy to treat cancer. This survey covered information on how treatment decisions were made, patient knowledge level and expectations regarding side effects, as well as general patient feedback. She will also touch upon some of the new features of this year's Annual Meeting with a preview of what's in store for future annual meetings.

ASTRO Chair Brian Kavanagh, MD, MPH, FASTRO, will reflect upon his time as ASTRO president and chair, recounting the new initiatives he carried out that were in line with ASTRO's strategic plan. To view the strategic plan, please visit www.astro.org/strategicplan.

Dr. Kavanagh will focus on the organizational goals of *excellence in patient care and diversity and inclusion*. To achieve excellence in patient care, ASTRO has published five clinical guidelines this year; there are four more currently in development. In terms of diversity and inclusion, 2018 was the inaugural year for the Pipeline Protégé Program, which was created as a career development program aimed at bringing diversity to ASTRO's Councils and diversifying ASTRO's future leaders.

Dr. Kavanagh will also unveil the members of the new ASTRO Speakers' Bureau. This bureau was created to further the reach of ASTRO and expand our subject matter experts available to speak to members of the press and others on matters related to radiation oncology.

Incoming ASTRO Chair and current President Paul Harari, MD, FASTRO, will then summarize his goals for the coming year, with an eye on the strategic plan core values of *Improved Outcomes and Innovation*. Specifically, Dr. Harari will speak to the development of new ASTRO programs that *retain and foster the intellectual research talent currently entering the field of radiation oncology and consistently deliver the highest quality and value care to cancer patients*.

In order to retain and foster the next generation of radiation oncologists, ASTRO has created new membership categories—student/graduate student, postdoctoral fellow and patient advocate—to help expose those interested in the field to ASTRO and its programs. ASTRO also offers a discount membership program to entice graduating residents to become involved in their society.

Dr. Harari will discuss how ASTRO is developing and deepening relationships with international radiation oncology societies. The ASTRO Board held a special luncheon on Saturday with representatives of major international societies. These groups are now in talks about areas of potential collaboration, including educational activities and how to raise the profile of radiation oncology globally.

Please join us for this annual luncheon to learn more about what ASTRO is doing on behalf of its members and hear more about future directions.

Science Council endorsed sessions at ASTRO 2018

By Tyler Beck, PhD, ASTRO Scientific Affairs

Each year, ASTRO's Science Education Program Development (SEPD) Committee is tasked with determining important topics in radiation oncology research, soliciting session submissions focusing on these topics and making recommendations to the Annual Meeting Program Committee on sessions that highlight the most relevant and exciting research in the field. This year was no exception, the SEPD committee identified 16 sessions, all of which have been designated as "Science Council Endorsed" sessions.

Be sure to add these Tuesday and Wednesday sessions to your conference planner:

Tuesday, October 23 –
1:00 p.m. – 2:30 p.m. – EDU 25 *Translational Genomics to Advance Precision Radiation Oncology*, Room 006, Kent Mouw, MD, PhD, Dana-Farber Cancer Institute
1:00 p.m. – 2:30 p.m. – Panel 09 *Current and Future Applications for MR-guided Radiotherapy (MRgRT) with Real-time Adaptive Radiotherapy*, Lila Cockrell Theatre, Moderator Percy Lee, MD, University of California, Los Angeles
1:00 p.m. – 2:30 p.m. – Panel 10 *Artificial Intelligence and Deep Learning Within Radiation Oncology: Current Applications and Future Directions*, Room 304, Moderators James Yu, MD, MHS, Yale University, and Sanjay Aneja, MD, Yale School of Medicine
2:45 p.m. – 4:15 p.m. – Special Session 01 *Research Spotlight: ASTRO's Research Award Winners*, Room 005, Moderator Gary Kao, MD, PhD, University of Pennsylvania
4:45 p.m. – 6:15 p.m. – Panel 08 *The Radiobiological Bases of Novel Radiation Treatment Schemes for Breast Cancer*, Room 006, Moderator Peter Chen, MD, FASTRO, William Beaumont School of Medicine

Wednesday, October 24 –
7:45 AM – 9:00 a.m. – EDU 32 *4-D CT/CBCT, 4-D MRI and Beyond 4-D Imaging*, Room 217 C/D, Moderator Daniel Low, PhD, University of California, Los Angeles
11:00 a.m. – 12:30 p.m. – EDU 39 *Clinical Trials Design and Methodology Education in Radiation Oncology*, Room 007 A/B, Moderators Abigail Berman, MD, MSCE, University of Pennsylvania, and Neha Vapiwala, MD, University of Pennsylvania
11:00 a.m. – 12:30 p.m. – Panel 16 Exploiting the DNA Damage Response to Improve the Response to Radiation Therapy, Room 304, Moderators Henning Willers, MD, Massachusetts General Hospital, and Julie Schwarz, MD, PhD, Washington University School of Medicine
1:30 p.m. – 3:00 p.m. – Panel 19 *Integrating Immunotherapy in the Definitive Setting in Radiation Oncology*, Room 304, Moderator Percy Lee, MD, UCLA
3:15 p.m. – 4:45 p.m. – EDU 43 *Promises and Pitfalls of Using MRI in Treatment Planning*, Room 304, Moderator Carri Glide-Hurst, PhD, Henry Ford Hospital
3:15 p.m. – 4:45 p.m. – Panel 22 *Translating Needs into Action: Adolescent and Young Adult Cancer Care for the Radiation Oncologist,* Room 217 C/D, Moderator Shekinah Elmore, MD, MPH, Harvard University

On Sunday, Suzanne Evans, MD, moderated the panel session *The How and Why of Applying Formal Risk Management Techniques for Quality Improvement*. Yesterday, Randall Kimple, MD, PhD, moderated the education session, *Integrating Biology into Clinical Practice for Viral Associated Cancers*. There were also two panel sessions: *NCI's Quantitative Imaging Network: Development and Integration of Novel Tools for Oncology Clinical Trials and Patient Management*, moderated by Hui-Kuo George Shu, MD, PhD, FASTRO, and John Buatti, MD, FASTRO, and *The Translational Potential of Liquid Biopsies for Predicting Radiation Response*, moderated by George Wilson, PhD. Yesterday afternoon, the American Society of Clinical Oncology (ASCO) and ASTRO presented a joint session, *Genomics to Personalize Breast Cancer Treatment: On the Evolving Road to Minimize Overtreatment*, moderated by Peter Chen, MD, FASTRO.

If you missed these sessions, be sure to check out the Virtual Meeting to view slides and recordings, when available, online at www.astro.org/virtualmeeting.

ASTRO Advocacy: Get engaged and make a difference!

By Margarita Valdez, ASTRO's assistant director of congressional relations

On June 25, more than 80 radiation oncologists arrived in Washington to advocate on behalf of their profession. The 2018 Advocacy Day agenda included a full day of expert speakers, including the Center for Medicare and Medicaid Innovation (CMMI) Chief Medical Officer, Anand Shah, MD, MPH, and Director of the Division of Specialty Payment Models, Ellen Lukens. These experts discussed the future of alternative payment models and listened to feedback from ASTRO members about a radiation oncology-specific model.

Other panel sessions included guest speakers from Capitol Hill. Staffers from the offices of Senator Richard Burr of North Carolina, Senator Debbie Stabenow of Michigan and Representative Devin Nunes of California discussed the future of health care in the 115th Congress, and what to expect in 2019. These discussions helped prepare attendees for their meetings the following day on Capitol Hill.

On June 26, attendees met with the offices of their senators and representatives to discuss ASTRO's legislative priorities. These priorities include robust funding for the National Cancer Institute (NCI), preserving access to care for cancer patients, addressing issues with radiation oncology benefit managers and stable Medicare payments. ASTRO attendees invited their legislative offices to tour their facilities to get a better understanding of the complex work performed by a radiation therapy team, and they also invited members of Congress and their staff members to tour the oncology center at NCI.

As a result, members of Congress and their staffs have been visiting radiation oncology facilities across the country, including Ways and Means Health Subcommittee Chairman Peter Roskam, who toured the practice of William Hartsell, MD, ASTRO's Health Policy Council Vice-chair. This tour enabled ASTRO members to share the complexities of treatment delivery and the need for ongoing research on cancer treatment. In addition, ASTRO President Paul M. Harari MD, FASTRO, hosted Representative Mark Pocan at the University of Wisconsin's Department of Human Oncology, where Dr. Harari is Chairman. Dr. Harari led the Congressman on a tour of the radiation oncology facility. Tours give ASTRO members a chance to show members of Congress what is involved in treating a cancer patient with radiation therapy and everything that goes into running a successful radiation oncology facility.

If you are interested in getting engaged in advocacy and would like assistance in setting up a tour for your member of Congress, please contact camille.kidd@astro.org. Save the date for the 2019 Advocacy Day, which will be held April 29-30, 2019, in Washington.

2019 ASTRO ADVOCACY DAY

ASTRO heads to Chicago for its 2019 Annual Meeting

By Theodore DeWeese, MD, FASTRO

Save the dates, September 15-18, 2019, as ASTRO celebrates its 61st Annual Meeting in Chicago. The theme of the 2019 meeting, "Innovate, Collaborate: Transform," provides focus on a practical understanding of precision medicine and how radiation oncologists will select, manage and follow patients differently in the next 10 years. These advances will be underpinned by exciting new discoveries specific to the needs of radiation oncology and will be done in collaboration with colleagues in other oncologic disciplines to support care of patients both in the United States and around the world.

I invite you to think ahead and submit your scientific abstract. The Call for Abstracts will open on December 13, 2018, and close on February 13, 2019. The friendly and diverse city of Chicago will once again host ASTRO for what should be a lively, informative and memorable experience at McCormick Place West. I look forward to seeing you at ASTRO's 61st Annual Meeting!

For updates on the ASTRO Annual Meeting, check out www.astro.org/annualmeeting.

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