Annual Meeting

May 5 - 8, 2018 • Loews Portofino Bay Hotel at Universal Orlando • Orlando, FL

President: Ben Slotman, MD, PhD
Program Chair: Beth Beadle, MD, PhD

Final Program

BACK TO THE FUTURE: THERAPY AND CARE IN THE NEXT CENTURY OF ARS
To promote the multidisciplinary and collegial study of all aspects of cancer. The Society will encourage liaison and professional development among the medical, surgical, and allied scientists concerned with cancer.
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Dear 2018 ARS Attendees,

We are thrilled to welcome you to the 100th Annual Meeting of the American Radium Society! We are excited to celebrate the past, present, and future of ARS at the beautiful Loews Portofino Hotel at Universal Studios!

During this meeting, I encourage you to engage with the outstanding speakers, who have generously agreed to share their knowledge with us. We are honored to have Michael Baumann as our distinguished Janeway Lecturer and James Welsh as our Keynote Speaker. In addition, as a special celebration of our 100th year, Dr. Martin Colman and Dr. Eric Hall will provide an insightful session on the history of ARS. It is destined to be a thought-provoking review of the accomplishments of the last century. We are also having a special celebration of all of the ARS Past Presidents, to thank them for their contributions to the Society and the field.

We are especially excited to welcome the new ARS-ACR Appropriateness Criteria panel members to the ARS meeting! We are committed to making these initiatives a hallmark of the Society, and we look forward to the committee updates and ways to integrate the panels and Society even more in the future.

The meeting can only exist with each and every one of you engaging in the sessions, socializing at the sessions and events, and interacting with our generous sponsors. Please visit the Exhibit Hall and spend some time learning about the new technologies, drugs, software, and devices that will prove to be the future of multidisciplinary oncology care.

Finally, please enjoy the amazing area and get to know ARS members, new and not-so-new! We will hold our ever-entertaining Resident Jeopardy, generously organized by Dr. Luh, and our Poster Walk, generously organized by Dr. Siddiqui. These are great opportunities to learn, laugh, and meet new people. Enjoy the meeting, the hotel, and the rides!

Welcome to Orlando!

Beth

Beth M. Beadle
Dear Colleagues,

Welcome to the 100th Annual Meeting of the American Radium Society! The theme of this year’s meeting is “Back to the Future: Therapy and Care in the Next Century of ARS”. We will look back on a very rich history of our Society and on the many developments within the field of oncology. We will discuss exciting advances in science and care of the patients with cancer and also look ahead to what the next century may bring. During the meeting, we will hear many new and original data that will influence our daily work, and exciting innovations that will advance our field and may lead to important changes in our specialties in the future.

We have received outstanding abstracts and we look forward to the presentations in the scientific sessions. We have awarded ten travel grants and five Young Oncologist Essay Awards. We will devote ample time to the new ARS-ACR Appropriate Use Criteria within our meeting. The progress and developments within the panels will be discussed. In the Presidential Course, which will focus on MRI-guided adaptive radiotherapy and particle therapy, a group of fantastic speakers will discuss these topics from a variety of perspectives.

Dr. Beth Beadle, radiation oncologist at Stanford University and Chair of the Scientific Program Committee, deserves much praise for recruiting an outstanding group of lecturers and panelists. I am very honored to extend a special welcome to our distinguished speakers, Dr. Jim Welsh of Loyola University in Chicago, who will give this year’s keynote lecture, and Dr. Michael Baumann, director of the German Cancer Research Center (DKFZ) in Heidelberg, Germany, who will give the 2018 Janeway Lecture. At this meeting, we will be providing 11.25 SA-CME credits this year to help fulfill ongoing CME obligations.

Our deepest gratitude goes to our industry sponsors, AstraZeneca, Elekta, Hitachi America, Ltd., Novartis Pharmaceuticals, Varian Medical Systems, and ViewRay, Inc., for providing educational grants. Additionally, we sincerely appreciate the support of other industry partners who exhibit during the meeting. Please visit their booths and participate in the Passport program. Finally, I also thank all involved with the organization of the meeting, including the Executive Committee and the new ARS staff. It has been a true privilege and a joy to work with you all.

The American Radium Society is the oldest multidisciplinary cancer society in the world and has a long and rich history of scientific excellence combined with collegiality. I hope that you enjoy the academic content of the meeting, the interactions with your colleagues, and also find some time to relax and unwind.

Ben Slotman, MD, PhD, h.FACR
general information

ROOM ASSIGNMENTS

**Speaker Ready Room**

**Registration**

**General Session**

**Exhibit Hall and Posters**

**Spouses Lounge**

**Tumor Boards**

**Ligurian I**

**Satellite Registration (Upper Level)**

**Tuscan III**

**Tuscan IV**

**Hospitality Parlor**

**Tuscan II**

ON-SITE REGISTRATION HOURS

**Satellite Registration (Upper Level)**

**Saturday, May 5, 2018**

10:00am - 5:30pm

**Sunday, May 6, 2018**

6:30am - 1:30pm

**Monday, May 7, 2018**

7:00am - 1:00pm

**Tuesday, May 8, 2018**

7:00am - 11:30am

EXHIBIT HALL/POSTER HOURS

**Tuscan IV**

**Saturday, May 5, 2018**

5:00pm - 6:30pm

**Sunday, May 6, 2018**

7:00am - 12:30pm

**Monday, May 7, 2018**

7:00am - 12:30pm

**Tuesday, May 8, 2018**

7:00am - 12:30pm

SPEAKER READY ROOM HOURS

**Tuscan I**

**Saturday, May 5, 2018**

10:00am - 5:30pm

**Sunday, May 6, 2018**

7:00am - 5:00pm

**Monday, May 7, 2018**

7:00am - 4:00pm

**Tuesday, May 8, 2018**

7:00am - 11:30am

HOSPITALITY/SPOUSES SUITE

**Hospitality Parlor**

**Sunday, May 6, 2018**

7:00am - 11:30am

**Monday, May 7, 2018**

7:00am - 11:30am

**Tuesday, May 8, 2018**

7:00am - 11:30am

WHO SHOULD attend

The ARS meeting is open to ARS Members and Non-Members, specializing or training in the field of Oncology including, but not limited to: Medical Oncology, Surgical Oncology, Radiation Oncology, Gynecologic Oncology, Head and Neck Oncology, and all other specialties within the field of Oncology, as well as Allied Health and Industry Corporate Leaders.
EDUCATIONAL LEARNING OBJECTIVES

At the end of this activity, participants will be able to:

• Describe the increasing role of cancer in global health, mechanisms to increase detection and treatment, and novel radiation technologies being used to increase availability of radiation therapy through the world.

• Identify the emerging role of immunotherapy in the treatment of cancer, including in the concurrent setting, and explain the potential side effects that may develop and how to manage them.

• Compare the different management strategies of HPV-associated oropharynx cancer, including the relative risks and benefits of surgical vs. non-surgical based approaches.

• Describe the risks and benefits of advanced technologies in radiation therapy, including particle therapy, MRI-guided radiation therapy, stereotactic radiation, and advanced brachytherapy, in the treatment of various malignancies, including lung, GI, breast, CNS, GU, and H&N.


OUTCOMES

This educational activity will improve competence, practice performance and patient outcomes by:

• Providing specific guidelines on appropriate care through the presentation of the ARS-ACR Appropriate Use Criteria panels.

• Providing real-life examples of cases and educating on best practices of contouring and techniques through the contouring sessions and tumor boards.

• Discussing the role of multidisciplinary care in the treatment of multiple malignancies, including thoracic, H&N, GYN, and breast.

• Describing the global health crisis that cancer poses and engaging participants to get involved, understand new technologies developed for low-resource settings, and identify opportunities for development.

• Explaining the role of immunotherapy in the treatment of patients, including the use of concurrent therapy with radiation.

• Demonstrating the role of advanced technologies, including particle therapy, MRI-guided radiation therapy, stereotactic radiation therapy, and advanced brachytherapy, in the multidisciplinary treatment of cancer.
BECOME a member

The world’s first organization dedicated to the multidisciplinary treatment of cancer.

WHO JOINS THE ARS?

The American Radium Society (ARS), a venerable institution and the oldest society devoted to the study and treatment of cancer, is a multidisciplinary organization with members from a number of specialized fields including:

- Radiation Oncology
- Surgical Oncology
- Gynecological Oncology
- Medical Oncology
- Allied Science
- Medical Physics
- Various fields of Oncology

OUR MEMBER BENEFITS

ARS membership offers a range of member benefits including:

- Our signature event, the ARS Annual Meeting, that rotates among amazing locations while offering 4 days of networking, state-of-the-art oncology care and techniques, and generous Category 1 CME sessions.
- Discounted registration fees for attendance at the ARS Annual Meeting.
- Online Self-Assessment CME (SA-CME) Modules are educational sessions that include self-administered examinations to improve your skills, knowledge, patient care, and practice performance. Self-assessment credits are an essential element of Maintenance of Certification. You will earn value-added CME credit for your participation in each session.
- As a member, your SA-CME Modules are FREE! You must register for the annual meeting’s scientific session in order to participate in the SA-CME Modules.
- Opportunities to apply for the Young Oncologist Essay Award and Travel Grant Awards.
- A membership certificate for display in your home or office.
- Discounted rental rates for the ARS Membership Mailing List.

SPECIAL SERVICES

The American Radium Society wishes to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently because of the absence of auxiliary aids and services. If you require auxiliary aids or service, please indicate your needs at the ARS registration desk. Please direct all questions concerning registration to the Meeting Registrar at 310-437-0581 or registration@americanradiumsociety.org
Main Meeting Locations

- Speaker Ready Room: Tuscan I
- Registration: Satellite Registration (Upper Level)
- General Session: Tuscan III
- Exhibit Hall and Posters: Tuscan IV
- Tumor Boards: Tuscan II
- Sunday Social Event: Citrus Piazza
PAST PRESIDENTS OF THE ARS

1916 W.H.B. Aikins, MD*
1917 W.H.B. Aikins, MD*
1918 John M. Lee, MD*
1919 J.B. Bissell, MD*
1920 Henry K. Pancoast, MD*
1921 Henry Schmitz, MD*
1922 G.E. Pfahler, MD*
1923 Robert F. Loucks, MD*
1924 James T. Case, MD*
1925 William S. Newcomet, MD*
1926 Douglas Quick, MD*
1927 Albert Soiland, MD*
1928 Curtis F. Burnam, MD*
1929 Edwin C. Ernset, MD*
1930 Harry H. Bowing, MD*
1931 Henry J. Ullmann, MD*
1932 Sanford Withers, MD*
1933 Burton J. Lee, MD*
1934 Rollin H. Stevens, MD*
1935 William H. Cameron, MD*
1936 George W. Grier, MD*
1937 Edward H. Skinner, MD*
1938 Joseph H. Johnston, MD*
1939 William P. Healy, MD*
1940 Lawrence A. Pomeroy, MD*
1941 Frederick W. O'Brien, MD*
1942 Hayes E. Martin, MD*
1943 William E. Costolow, MD*
1944 Charles L. Martin, MD*
1945 A.N. Arneson, MD*
1946 Maurice Lenz, MD*
1947 Howard A. Hunt, MD*
1948 Indrin Chetty, PhD
1949 Benjamin Movsas, MD
1950 Roy Decker, MD, PhD
1951 Khaled Alektiar, MD
1952 Benjamin Movsas, MD
1953 James Cox, MD
1954 Thomas Dilling, MD
1955 Gary Freedman, MD
1956 Thomas Galloway, MD
1957 Joseph Herman, MD, MSc
1958 Peter Johnstone, MD
1959 Reza Mehran, MD
1960 Kenneth Rosenzweig, MD
1961 Michael Kupferman, MD
1962 Ramesh Rengan, MD
1963 John “Drew” Ridge, MD, PhD
1964 John A. ‘Drew’ Ridge, MD, PhD
1965 John L. Pool, MD*
1966 Juan A. del Regato, MD*
1967 Fernando Bloedorn, MD*
1968 James F. Nolan, MD*
1969 John V. Blady, MD*
1970 Antolín Raventós, MD*
1971 Jerome M. Vaeth, MD*
1972 Victor A. Marcial, MD*
1973 Felix Rutledge, MD*
1974 Luther W. Brady, MD
1975 Richard H. Jesse, MD*
1976 William E. Costolow, MD*
1977 Charles L. Martin, MD*
1978 Frederick W. George III, MD*
1979 Henry J. Ullmann, MD*
1980 Alfred S. Ketcham, MD*
1981 Simon Kramer, MD*
1982 George C. Lewis, Jr, MD*
1983 Morton A. Kligerman, MD*
1984 Seymour H. Levitt, MD
1985 John R. Durant, MD*
1986 Frederick Eilber, MD
1987 Gerald E. Hanks, MD*
1988 Morris J. Wizenberg, MD*
1989 Carl M. Mansfield, MD
1990 Eliott W. Strong, MD
1991 Robert G. Parker, MD*
1992 J. Taylor Wharton, MD
1993 Lawrence W. Davis, MD
1994 Peter H. Wiernik, MD
1995 Marvin Rotman, MD
1996 Robert M. Byers, MD
1997 H. Rodney Withers, MB, BS
1998 Thomas W. Griffin, MD
1999 David H. Hussey, MD*
2000 Eric J. Hall, DPhil, DSc
2001 David M. Gershenson, MD
2002 Jay S. Cooper, MD
2003 Jonathan J. Beitler, MD
2004 Joseph Herman, MD
2005 Michael Kupferman, MD
2006 Randal Weber, MD
2007 R. E. Haffty, MD
2008 Bruce E. Haffty, MD
2009 Raymond Sawaya, MD
2010 Peter A.S. Johnstone, MD
2011 John V. Blady, MD
2012 Alan Pollack, MD, PhD
2013 Thomas Buchholz, MD
2014 J. Taylor Wharton, MD
2015 Elin R. Sigurdson, MD, PhD
2016 John A. ‘Drew’ Ridge, MD, PhD
2017 Quynh-Thu Le, MD
2018 Bruce G. Haffty, MD
2019 Ritsuko U. Komaki, MD
2020 John L. Pool, MD*
2021 Kenneth E. Rosenzweig, MD
2022 John A. ‘Drew’ Ridge, MD, PhD
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2058 Bruce E. Haffty, MD
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2060 Peter A.S. Johnstone, MD
2061 John V. Blady, MD
2062 Alan Pollack, MD, PhD
2063 Thomas Buchholz, MD
2064 J. Taylor Wharton, MD
2065 Elin R. Sigurdson, MD, PhD
2066 John A. ‘Drew’ Ridge, MD, PhD
2067 Quynh-Thu Le, MD
2068 * Deceased
ARS leadership

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Dana-Farber / Brigham and Women’s Cancer Center, Boston, MA

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Brigham and Women’s Hospital, Boston, MA

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Rochester Regional Health System, Rochester, NY

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Miller School of Medicine, University of Miami, Miami, FL

Louis Potters, MD
Zucker School of Medicine at Hofstra/Northwell, East Garden City, NY

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Medical College of Wisconsin, Milwaukee, WI

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Tracy Shereetz, MD
UCSF Radiation Oncology, San Francisco, CA

Farzan Siddiqui, MD, PhD
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University of Maryland Medical Center, Baltimore, MD

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William Small, Jr., MD
Loyola University Medical Center, Hines, IL

Yukio Sonoda, MD
Memorial Sloan Kettering, New York, NY

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The University of Texas MD Anderson Cancer Center

Vinita Takiar, MD, PhD
University of Cincinnati Cancer Institute, Cincinnati, OH

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Washington University School of Medicine in St. Louis, St. Louis, MO

Mylin A. Torres, MD
Emory University School of Medicine, Atlanta, GA

Jillian Tsai, MD
Memorial Sloan Kettering Cancer Center, New York, NY

Andrew Vassil, MD
Cleveland Clinic, Cleveland, OH

James S. Welsh, MD, MS
Loyola University Medical Center, Hines, IL

Jean Wright, MD
Johns Hopkins University School of Medicine, Baltimore, MD
### Saturday, May 5, 2018

1:00pm - 3:00pm  **EduCase SBRT eContouring Symposium – Pancreas & Lung (SA-CME)**  
*Registration is required for this course*

3:00pm - 5:00pm  **Presidential Categorical Course (SA-CME)**  
- Proton and Heavy Ion Therapy: Current State and Future Directions for Clinical Applications
- MRI-Guided Radiation Therapy

5:00 - 6:30pm  **Opening Reception / Poster Walk in Exhibit Hall**

### Sunday, May 6, 2018

7:00am - 7:30am  **Continental Breakfast**

7:30am - 8:30am  **Breast Education Session – Hypofractionation (SA-CME)**

8:30am - 9:45am  **Appropriate Use Criteria Update (SA-CME)**

9:45am - 10:00am  **Refreshment Break/Posters in the Exhibit Hall**

10:00am - 10:45am  **Scientific Session #1 - Thoracic**

10:45am - 11:30am  **Janeway Lecture: RadioOncology in Times of Personalized Medicine**
*Michael Baumann, MD, German Cancer Research Center*

11:30am - 12:15pm  **Scientific Session #2 - GI**

12:15pm - 1:15pm  **Scientific Session #3 - CNS/Pediatrics**

1:30pm - 3:00pm  **Case-Based Tumor Board - Head & Neck Cancer (SA-CME)**  
*Registration is required for this course*

5:30pm - 7:00pm  **Resident vs. Faculty Medical Jeopardy**

7:30pm - 9:30pm  **ARS Social Event**

### Monday, May 7, 2018

7:00am - 7:30am  **Continental Breakfast**

7:30am - 8:00am  **Presidential Lecture**

8:00am - 9:00am  **Scientific Session #4 – GU/GYN**

9:00am - 10:00am  **Quality & Value in Radiation Oncology and Global Health Panels (SA-CME)**  
- Quality and Value in Radiation Oncology and Ongoing Efforts in Payment Reform
- Global Radiation Oncology

10:00am - 10:15am  **Refreshment Break/Posters in Exhibit Hall**

10:15am - 11:00am  **Keynote #2: Lessons from the Animal Kingdom, the Veterinary Clinic, the Abscopal Phenomenon and the Obstetrician’s Office: Why Modern Cancer Immunotherapy Will Succeed**
*James S. Welsh, MD, Loyola University Medical Center*

11:00am - 11:45am  **Scientific Session #5 – Breast**

11:45am - 12:30pm  **Scientific Session #6 – Head & Neck**

1:00pm - 2:30pm  **Case-Based Tumor Board - Gynecologic Cancer (SA-CME)**  
*Registration is required for this course*

### Tuesday, May 8, 2018

7:00am - 7:30am  **Continental Breakfast**

7:30am - 8:00am  **Business Meeting**

8:00am - 8:45am  **Scientific Session #7 – Young Oncologist Essay Awards**

8:45am - 9:45am  **Education Session: Lung Cancer & Immunotherapy (SA-CME)**

9:45am - 10:30am  **Scientific Session #8 – Physics/Biology**

10:30am - 10:45am  **Refreshment Break/Posters in Exhibit Hall**

10:45am - 11:30am  **History Panel**

11:30am - 12:30pm  **Scientific Session #9 – Quality/Policy/PROs/Support**
THANK YOU TO OUR
2018
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The ARS would like to thank the following companies for providing educational grants in support of the 100th Annual Meeting:

Platinum Level
Varian Medical Systems

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Hitachi America, Ltd.

Bronze Level
AstraZeneca
Elekta
ViewRay, Inc.

Support
Resident Jeopardy
Varian Medical Systems

Janeway Lecture
Dr. Michael Baumann
Varian Medical Systems

Novartis Pharmaceuticals

*Supporters as of April 2018

Siemens Healthineers Industry Dinner Symposium

*Innovations in Imaging for Radiation Therapy planning: Dual Energy CT*

Saturday, May 5th, 2018 ~ 7:30pm – 9:00pm

*Tuscan II*

**This activity is not part of the official ARS scientific program**

Stemming from a long history in Radiation Therapy, Siemens Healthineers continues to bring to the market new imaging techniques and technologies that aim to contribute to improve care. Some of those technologies – as is the case with Dual Energy CT (DECT) – are somewhat “unconventional” and the RT community may not be very familiar with them. This educational symposium will give the opportunity to the attendees to inform themselves about some of the potential benefits of using DECT in Radiation Therapy through two talks:

“Dual Energy CT in RT: technical considerations”
by Guillaume Grousset (Siemens Healthineers)

“The utility of dual energy CT scanner in a radiation oncology simulation”
by Dr. Jonathan J. Beitler (Emory Winship Cancer Institute)

AstraZeneca Industry Symposium

*Immunotherapy for Patients with Unresectable Stage III Non-Small Cell Lung Cancer Following Chemoradiation Therapy*

Sunday, May 6, 2018 ~ 4:00pm – 5:30pm

*Tuscan II*

**This activity is not part of the official ARS scientific program**

Prior to 2018, several clinical trials had been conducted in patients with Stage III NSCLC following chemoradiation therapy (CRT) with the goal of sustaining or improving upon the benefits of CRT. However, these efforts had not resulted in improved outcomes for patients, warranting new treatment approaches. This presentation will discuss a novel approach—immunotherapy—and its role in the management of patients with unresectable Stage III NSCLC.

Speaker: Roy H. Decker, MD, PhD (Yale School of Medicine)

ViewRay, Inc. Industry Symposium

*MriDian MR Image-Guidance – Visibly Changing Radiation Therapy*

Monday, May 7, 2018 ~ 4:00pm – 5:30pm

*Tuscan II*

**This activity is not part of the official ARS scientific program**

Come hear clinicians from leading institutions within Europe and the United States discuss their experience with MriDian®, the world’s first and only MR Image-Guided radiation therapy system to receive regulatory approvals in Europe, the United States and Japan. Everything from real time tumor tracking and gating to on-table adaptive therapy and patient outcomes will be addressed.

This is a symposium you won’t want to miss!

Presenters include:
Ben Slotman, MD PhD (VU University Medical Center)
Ben Movsas, MD (Henry Ford Health System)
Moderated by Lorraine Portelance, MD (University of Miami)
exhibitor directory

Back to the Future: Therapy and Care in the Next Century of ARS

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Accuray, Inc.
1310 Chesapeake Terrace
Sunnyvale, CA, 94089
www.accuray.com

Accuray is a radiation oncology company that develops, manufactures and sells precise, innovative treatment solutions that set the standard of care with the aim of helping patients live longer, better lives. The Company’s leading-edge technologies deliver the full range of radiation therapy and radiosurgery treatments.

Best Medical International
Tel: (703) 451-2378
Fax: (703) 451-8421
www.teambest.com

The TeamBest family of companies has been proudly developing, manufacturing, and delivering reliable medical equipment and supplies for more than 40 years. TeamBest includes over a dozen companies offering complementary products and services for brachytherapy, health physics, radiation oncology, blood irradiation, vascular therapy, imaging, and medical particle acceleration. TeamBest is the single source for an expansive line of life saving medical equipment and supplies. Our trusted team is constantly expanding and innovating to provide the most reliable and cutting edge medical equipment and supplies to the global healthcare and research industries.
Brainlab develops, manufactures and markets software-driven medical technology, enabling access to advanced, less invasive patient treatments.

Brainlab technology powers treatments in radiosurgery as well as numerous surgical fields including neurosurgery, orthopedic, ENT, CMF, spine and trauma. Founded in Munich in 1989, Brainlab has over 11,800 systems installed in over 100 countries.

Gold Anchor is a fiducial marker for any soft tissue with proven clinical benefits. It is mostly used for implantation in prostate prior to radiation treatment. We believe that Gold Anchor is the most clinically beneficial fiducial marker that exists today. The industry leading thin needles, the anchoring design and the enhanced MRI visibility makes Gold Anchor ideal for prostate radiotherapy workflow as it reduces side effects and patients can be moved to CT/MR planning immediately after implantation.

We are a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases.

Our aim is contributing to progress in medical technology and helping healthcare professionals all over the world to improve their patients’ quality of life.

Elekta is a human care company pioneering significant innovations and clinical solutions for treating cancer and brain disorders. The company develops sophisticated, state-of-the-art tools and treatment planning systems for radiation therapy, radiosurgery and brachytherapy, as well as workflow enhancing software systems across the spectrum of cancer care. Stretching the boundaries of science and technology, providing intelligent and resource-efficient solutions that offer confidence to both health care providers and patients, Elekta aims to improve, prolong and even save patient lives.

Today, Elekta solutions in oncology and neurosurgery are used in over 6,000 hospitals worldwide. Elekta employs around 3,800 employees globally. The corporate headquarters is located in Stockholm, Sweden, and the company is listed on NASDAQ Stockholm.
Mevion Medical Systems
300 Foster Street
Littleton, MA 01460
Tel: (978) 540-1500
Fax: (978) 540-1501
www.mevion.com

Mevion Medical Systems, Inc. is a leading provider of compact proton therapy systems for use in radiation treatment for cancer patients. MEVION S250i Proton Therapy System® with HYPERSCAN™ pencil beam scanning (PBS) technology introduces novel energy layer switching and automated collimation systems. These advantages enable the S250i™ system to deliver faster, sharper, and more robust PBS proton radiation treatments. Mevion is based in Littleton, Massachusetts, with presence in Europe and China.

Orfit Industries America
350 Jericho Turnpike
Suite 302
Jericho, New York 11753
Tel: (516) 935-8500
Fax: (516) 935-8505
www.orfit.com

Based on innovative technologies Orfit develops the most precise and reliable patient immobilization systems, using head, neck and shoulders masks that limit movement to less than 1.5 mm. A comprehensive family of systems are available for SRS, supine/prone breast treatment, SBRT, extremities, pelvis/abdomen, Proton Therapy, MR and pediatric.

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Qfix
440 Church Road
Avondale, PA 19311
Tel: (610) 268-0585
Fax: (610) 268-0588
www.qfix.com

Qfix is a global leader specializing in patient positioning and immobilization devices. We are dedicated to helping radiation therapy professionals provide superior patient care with the world’s finest devices to enhance patient outcomes. Qfix offers complete, innovative solutions for MR, kV and MV imaging and treatment.

Siemens Healthineers
40 Liberty Blvd
Malvern, PA 19355
www.usa.healthcare.siemens.com

Siemens Healthineers is committed to becoming the trusted partner of healthcare providers worldwide, enabling them to improve patient outcomes while reducing costs. Driven by our legacy of engineering excellence and our pioneering approach, we are a global leader in medical imaging, laboratory diagnostics, clinical IT, and services. Visit www.usa.siemens.com/Healthineers for more info.

Varian Medical Systems
3100 Hansen Way
Palo Alto, CA 94304
Tel: (650) 493-4000
www.varian.com

Varian is a leader in developing cancer care solutions, including hardware and software for planning and delivering radiotherapy, radiosurgery, proton therapy and brachytherapy. The company also offers award-winning practice management and treatment planning solutions, as well as analytics and informatics solutions to support knowledge sharing, evidence-based medicine, and care coordination.

ViewRay, Inc.
815 E. Middlefield Rd.
Mountain View, CA 94043
www.viewray.com

ViewRay®, Inc. designs, manufactures and markets the MRIdian® radiation therapy system. MRIdian is built upon a proprietary high-definition MR imaging system designed from the ground up to address the unique challenges and clinical workflow for advanced radiation oncology. MRIdian’s high-definition MR was purpose-built to address specific challenges including beam distortion, skin toxicity, and other safety concerns, which may potentially occur when high magnetic fields interact with radiation beams.
Janeway Lecture

Prof. Dr. Michael Baumann is Scientific Chair and CEO of the German Cancer Research Center (DKFZ) in Heidelberg and speaker of the German Cancer Consortium DKTK. He also holds an appointment as Professor of Radiation Oncology at the Technische Universität Dresden.

Michael Baumann studied medicine at the University of Hamburg where he also worked on his doctoral thesis in the Institute of Biophysics and Radiation Biology. He was a postdoctoral fellow to the Massachusetts General Hospital in Boston before performing his research in radiation oncology in Hamburg. He became staff radiation oncologist member and head of experimental radiooncology and radiobiology of the Medical Faculty and University Hospital of the University of Dresden in 1995, where he later became Professor for Radiation Oncology, Chair at OncoRay Dresden and the Dept. of Radiation Oncology as well as Director of the Institute of Radiation Oncology at the Helmholtz Center Dresden-Rossendorf. Michael Baumann was the founding director of the University Cancer Center (UCC), Dresden and the National Center for Tumor Diseases (NCT), partner site Dresden.

Michael Baumann’s research program is dedicated to translational radiotherapy and radiobiology, including investigations on the role of cancer stem cells, molecular targeting, biological imaging for radiation oncology, and proton therapy with special emphasis on the treatment of lung and head and neck cancers. He has published more than 380 scholarly articles and book chapters. He is Editor-in-Chief of Radiotherapy and Oncology. Michael Baumann has been president of the ESTRO, ECCO and of the German Society for Radiation Oncology (DEGRO). He was awarded the membership of the German National Academy of Science Leopoldina in 2004 and received numerous academic awards including the Michael Fry Award, Breur Gold Medal (ESTRO, 2002), the Regaud Gold Medal Award (ESTRO, 2012), the ECCO Clinical Research Award (2013), the Röntgen Plaque of the city of Remscheidt and the German Röntgen Museum (2016) and the GH Fletcher Gold Medal (2017).

Prof. Dr. Michael Baumann

THE JANEWAY medal

The heraldry of the Janeway Medal is drawn from Norse Mythology: Odin, the Allfather with power over the precious minerals of the earth, sought enlightenment for the sons of men. He traveled to Mimir’s Well where Wisdom and Wit lodged hidden. The face of the Janeway Medal shows Odin standing before the giant Mimir, warden of the well, yielding one of his eyes for a draught of the precious water. The reverse side of the medal shows Odin’s two ravens, who spent the day flying throughout the expanse of the universe: Hugin (Thought-Reflection) and Munin (Memory Remembrance). The ravens returned each evening to perch on Odin’s shoulders and whisper in his ears the events and progress observed. Odin’s physical privation, as a price for wisdom, is symbolic of the selfsacrifice of the heroic pioneers of radium therapy for cancer.

Odin’s ravens, as shown on the Janeway Medal, have become the symbols of the American Radium Society. Since 1933, the American Radium Society has sponsored an annual lecture in memory of Doctor Henry H. Janeway (1873-1921), a great American pioneer in the therapeutic use of radium. Originally a large bronze medal, the Janeway Medal was changed to a gold medal in 1971. A special committee of the Society chooses the lecturers on the basis of their outstanding scientific contributions. Each lecturer is presented with the handsome Janeway Medal.
Dr. Welsh is currently the chief of radiation oncology at the Hines VA Hospital and is Professor & director of translational research at Loyola University Stritch School of Medicine. He recently completed an 8 year term on the Advisory Committee for the Medical Uses of Isotopes for the United States Nuclear Regulatory Commission and he is currently the chairman of the board of chancellors for the American College of Radiation Oncology. He is the author of the popular book, Sharks Get Cancer, Mole Rats Don’t - How animals could hold the key to cancer immunity in humans. He lives in the suburbs of Chicago with his wife, Teri and his giant tortoise, Bubba.
essay awards

Program Number: OA34
Presenter: Penny Fang, MD, The University of Texas MD Anderson Cancer Center
Abstract Title: MULTIMODAL IMAGING OF PATHOLOGIC RESPONSE TO CHEMORADIATION IN ESOPHAGEAL CANCER

Program Number: OA35
Presenter: Susan Y. Wu, MD, University of California, San Francisco
Abstract Title: IMPACT OF STAGING 68GA-PSMA-11 PET SCANS ON RADIATION TREATMENT PLANS IN PATIENTS WITH PROSTATE CANCER

Program Number: OA36
Presenter: Michael Xiang, MD, PhD, Stanford University
Abstract Title: COMPARATIVE EFFECTIVENESS AND TOXICITY OF CETUXIMAB OR CISPLATIN WITH CONCURRENT RADIATION FOR LOCOREGIONALLY ADVANCED SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK: A POPULATION-BASED ANALYSIS

Program Number: OA37
Presenter: Nicholas C.J. Lee, BSc, Yale School of Medicine
Abstract Title: HIGH RATE OF DISTANT METASTASIS IN HIGH-METASTATIC NODE NUMBER HUMAN PAPILLOMAVIRUS-POSITIVE OROPHARYNGEAL CARCINOMA

Program Number: OA38
Presenter: Bhaswanth Dhanireddy, MD, University of Kentucky
Abstract Title: ONCOLOGIC AND FUNCTIONAL OUTCOMES OF PATIENTS WITH EARLY OROPHARYNGEAL CANCER TREATED WITH TRANSORAL ROBOTIC SURGERY VS PRIMARY CHEMORADIATION: A SINGLE INSTITUTIONAL EXPERIENCE

TRAVEL grants

Program Number: OA02
Presenter: Aadel A. Chaudhuri, MD, PhD, Stanford Cancer Institute
Abstract Title: CIRCULATING TUMOR DNA QUANTITATION FOR EARLY RESPONSE ASSESSMENT OF IMMUNE CHECKPOINT INHIBITORS FOR METASTATIC NON-SMALL CELL LUNG CANCER

Program Number: OA05
Presenter: Skyler B. Johnson, MD, Yale University School of Medicine
Abstract Title: STEREOTACTIC BODY RADIATION AND ADJUVANT CHEMOTHERAPY VERSUS SURGERY AND ADJUVANT CHEMOTHERAPY FOR T2N0 SMALL CELL LUNG CANCER

Program Number: OA06
Presenter: Benjamin Oren Spieler, MD, University of Miami Miller School of Medicine
Abstract Title: INTERFRACTION VARIATIONS IN STOMACH VOLUME INCREASE DOSE TO STOMACH AND DUODENUM IN PANCREAS STEREOTACTIC BODY RADIOTHERAPY AND IS MITIGATED BY DAILY ADAPTIVE MAGNETIC RESONANCE IMAGE GUIDED RADIATION THERAPY

Program Number: OA08
Presenter: Joon K. Lee, MD, Henry Ford Hospital
Abstract Title: PATHOLOGIC RESPONSE TO NEOADJUVANT CHEMOTHERAPY AND CHEMORADIATION IN BORDERLINE RESECTABLE ADENOCARCINOMA OF THE PANCREAS

Program Number: OA14
Presenter: Shearwood McClelland III, MD, Oregon Health & Science University
Abstract Title: APPLICATION OF TUMOR TREATING FIELDS FOR NEWLY DIAGNOSED GLOBLASTOMA MULTIFORME: UNDERSTANDING OF NATIONWIDE PRACTICE PATTERNS AND TRENDS

Program Number: OA22
Presenter: David Asher, MD, University of Miami Miller School of Medicine
Abstract Title: INTER-FRACTIONAL MOTION IN PATIENTS WITH INTACT CERVICAL CANCER TREATED ON A MRI GUIDED EXTERNAL BEAM RADIATION THERAPY SYSTEM

Program Number: OA40
Presenter: Jason Chan, MD, University of California, San Francisco
Abstract Title: DEEP LEARNING-BASED AUTOSEGMENTATION FOR HEAD AND NECK RADIOTHERAPY

Program Number: OA42
Presenter: Avani D. Rao, MD, Johns Hopkins School of Medicine
Abstract Title: DEMONSTRATION OF SAFETY AND FEASIBILITY OF HYDROGEL MARKING OF THE PANCREAS-DUODENUM INTERFACE FOR IMAGE-GUIDED RADIATION THERAPY (IGRT) IN A PORCINE MODEL: IMPLICATIONS IN IGRT FOR PANCREATIC CANCER PATIENTS
The following presenters, faculty, or planning committee members have disclosed the listed financial relationships with commercial interests associated with their participation at the 100th Annual ARS Meeting. Only those that provided information indicating they have a financial relationship with a proprietary entity producing health care goods or services, with the exemption of non-profit or government organizations and non-health care related companies, are listed.

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<th>NAME</th>
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<th>RECEIVED/ROLE</th>
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<tr>
<td>Matthew Abramowitz</td>
<td>Alphatau, Varian Medical Systems</td>
<td>Travel Expenses Honorarium, Meeting/Consulting, Speaker</td>
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<td>Jimmy Caudell</td>
<td>ProKnow Systems</td>
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<td>Aadel Chaudhuri</td>
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<td>Honorarium, Speaker</td>
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<td>St. Joseph Medical Center</td>
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<td>Carri Glide-Hurst</td>
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<td>Chandan Guha</td>
<td>Celldex, Janssen Pharmaceuticals, Inc.</td>
<td>NCI SBIR grant, No money yet, Co-Principal Investigator, Consultant</td>
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<td>Lauren Henke</td>
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<td>Percy Lee</td>
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<td>Billy Loo</td>
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<td>Jiade J. Lu</td>
<td>Springer and Nature, Springer and Nature</td>
<td>Royalties, Editor, Author</td>
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<td>Kevin McMullen</td>
<td>SINK Cancer LLC, VIA Oncology Pathways</td>
<td>$25k per year, $2000 per year, Vice President/Co-owner, Disease Site Medical Director</td>
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<tr>
<td>Michael Milano</td>
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<td>Drew Moghanaki</td>
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<td>Honorarium, Travel Expenses, Speaker, Speaker</td>
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<td>Paul L. Nguyen</td>
<td>Augmenix, Augmenix, Bayer, Blue Earth Diagnostics, Janssen Pharmaceuticals, Inc.</td>
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<td>Farzan Siddiqui</td>
<td>American College of Radiology, Mayo Clinic Arizona, Varian Medical Systems, Varian Medical Systems, Wayne State University</td>
<td>Honorarium, Honorarium, Honorarium, Research Grant, Honorarium, Site surveyor, Speaker, Clinical School Instructor, Research, Speaker</td>
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<td>William Small, Jr.</td>
<td>Carl Zeiss</td>
<td>Honorarium, Speakers Bureau</td>
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<td>James S. Welsh</td>
<td>ProTom International</td>
<td>Honorarium, Medical Advisor</td>
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scientific program

Saturday, May 5, 2018

1:00pm - 3:00pm

**EduCase SBRT eContouring Symposium – Pancreas & Lung (SA-CME)**

Tuscan III

The EduCase tool is used by professional radiation oncology societies as a part of special courses offered to teach segmentation skills. Featured contouring exercises and didactic cases discussions will include:

**Session 01 – Lung Cancer Session:**
Moderator: Drew Moghanaki, MD, MPH, VCU Massey Cancer Center

**Session 02 – Pancreas Cancer Session:**
Moderator: Joe Herman, MD, MSc, The University of Texas MD Anderson Cancer Center

The contouring workshops are aimed at junior clinical or radiation oncologists who want to improve their contouring skills or at more senior specialists who want to refresh and validate their knowledge and skills in this field. Workshop participants will be assigned and complete a series contouring exercises prior to each session where the presenting faculty will be able to compare participant’s structures and evaluate contouring performance and display metric evaluation. Instructions and access permissions will be emailed to registered participants 3 weeks before workshop.

3:00pm - 5:00pm

**Presidential Categorical Course (SA-CME)**

Tuscan III

Session Chair: Ben Slotman, MD, PhD, VU University Medical Center

- **Proton and Heavy Ion Therapy: Current State and Future Directions for Clinical Applications**
  - Richard Amos, PhD, University College London Hospitals NHS Foundation Trust
  - Charles B. Simone II, MD, University of Maryland Medical Center
  - Jiade J. Lu, MD, MBA, Shanghai Proton and Heavy Ion Center

- **MRI-Guided Radiation Therapy**
  - Carri K. Glide-Hurst, PhD, Henry Ford Health System
  - Christopher Schultz, MD, Medical College of Wisconsin
  - Percy Lee, MD, David Geffen School of Medicine at UCLA
  - Lorraine Portelance, MD, Miller School of Medicine, University of Miami

5:00pm – 6:30pm

**Opening Reception / Poster Walk in the Exhibit Hall**

Tuscan IV

Poster Co-Leader: Beth Beadle, MD, PhD, Stanford University
Poster Co-Leader: Farzan Siddiqui, MD, Henry Ford Hospital

Poster Guides:
- Richard L. Bakst, MD, Mount Sinai School of Medicine
- Thomas J. Dilling, MD, Moffitt Cancer Center
- Mark A. Henderson, MD, Oregon Health & Science University
- Patrick Kelly MD, PhD, Orlando Health UF Health Cancer Center
- Kevin P. McMullen, MD, Columbus Regional Health
- Jillian Tsai, MD, Memorial Sloan Kettering Cancer Center
Sunday, May 6, 2018

7:00am - 7:30am  
**Continental Breakfast**  
Tuscan IV

7:30am – 8:30am  
**Breast Education Session – Hypofractionation (SA-CME)**  
Tuscan III

Panelists:  
Mylin Torres, MD, Emory University School of Medicine  
Bruce Haffty, MD, Rutgers Cancer Institute of New Jersey

8:30am – 9:45am  
**ARS-ACR Appropriate Use Criteria Committee Update (SA-CME)**  
Tuscan III

Bone  
Andrew Vassil, MD, Cleveland Clinic

Brain  
Michael Milano, MD, University of Rochester

Breast  
Kristina L. Novick, MD, Rochester Regional Health System

Gastrointestinal  
Joseph Herman, MD, MSc, The University of Texas MD Anderson Cancer Center

Genitourinary  
Brian J. Davis, MD, PhD, Mayo Clinic

Paul L. Nguyen, MD, Dana-Farber / Brigham and Women’s Cancer Center

Gynecology  
William Small, Jr., MD, Loyola University Medical Center

Head & Neck  
Farzan Siddiqui, MD, PhD, Henry Ford Health System

Lymphoma  
Sarah A. Milgrom, MD, The University of Texas MD Anderson Cancer Center

Thoracic  
Joe Y. Chang, MD, The University of Texas MD Anderson Cancer Center

9:45am – 10:00am  
**Refreshment Break/Posters in the Exhibit Hall**  
Tuscan IV

10:00am - 10:45am  
**Scientific Session #1 – Thoracic**  
Tuscan III

Moderators:  
Heath Skinner, MD, PhD, MD Anderson Cancer Center  
Roy Decker, MD, PhD, Yale Cancer Center

**OA01: PROSPECTIVE BASELINE QUALITY OF LIFE IN CLINICAL STAGE I NON-SMALL CELL LUNG CANCER PATIENTS RECEIVING STEREOTACTIC BODY RADIATION THERAPY VERSUS SURGERY: THE STARTING LINE IS NOT THE SAME**  
1Washington University in St. Louis, Department of Radiation Oncology, 2Washington University in St. Louis, Division of Cardiothoracic Surgery, 3Washington University in St. Louis, Department of Surgery, 4Washington University in St. Louis, Division of Cardiothoracic Surgery, 5Johns Hopkins Hospital, Division of Cardiothoracic Surgery

**OA02: CIRCULATING TUMOR DNA QUANTITATION FOR EARLY RESPONSE ASSESSMENT OF IMMUNE CHECKPOINT INHIBITORS FOR METASTATIC NON-SMALL-CELL LUNG CANCER**  

**OA03: A PHASE II STUDY OF STEREOTACTIC BODY RADIOTHERAPY AND STEREOTACTIC BODY PROTON THERAPY FOR HIGH-RISK MEDICALLY INOPERABLE EARLY-STAGE NON-SMALL CELL LUNG CANCER**  
Joe Y. Chang, MD, PhD¹, Chonnipa Nantavithya, MD¹², Daniel R. Gomez, MD¹, Ritsuko Komaki, MD¹, Zhongxing Liao, MD¹, Xiong Wei¹, Steven H. Lin, MD, PhD¹, Melenda Jeter, MD¹, Quynh-Nhu Nguyen, MD¹, Heng Li, PhD², Xiaodong Zhang, PhD³, Falk Pienisch³, X Ronald Zhu, PhD³, Peter A. Balter², PhD, Radhe Mohan, PhD³, Lei Feng⁴, Noah C. Choi, MD⁴, Joe Y. Chang, MD, PhD¹; ¹Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center, ²Division of Therapeutic Radiation and Oncology, Department of Radiology, King Chulalongkorn Memorial Hospital, ³Radiation Physics, The University of Texas MD Anderson Cancer Center, ⁴Biostatistics, The University of Texas MD Anderson Cancer Center, ⁵Department of Radiation Oncology, Massachusetts General Hospital, Harvard Medical School

**OA04: PATTERNS OF FAILURE AFTER POSTOPERATIVE RADIATION THERAPY FOR LOCALLY ADVANCED NSCLC: IMPLICATIONS FOR SHIFTING TOWARD MORE CONFORMAL RADIATION FIELDS**  
Bhavana V. Chapman, MD¹, Benjamin Farnia, MD², Matthew S. Ning, MD¹, Pamela Allen, PhD¹, Steven H. Lin, MD, PhD¹, Zhongxing Liao, MD, Daniel Gomez, MD³; Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center, ³Department of Radiation Oncology, University of Miami Miller School of Medicine
Sunday, May 6, 2018

**OA05: STEREOTACTIC BODY RADIATION AND ADJUVANT CHEMOTHERAPY VERSUS SURGERY AND ADJUVANT CHEMOTHERAPY FOR T1-2N0 SMALL CELL LUNG CANCER**
Skyler B. Johnson, MD, John M. Stahl, MD, Joseph A. Miccio, MD, Benjamin H. Kann, MD, Jacqueline R. Kelly, MD, MS, Roy Decker, MD, PhD; Department of Therapeutic Radiology, Yale University School of Medicine

10:45am – 11:30am

**Janeway Lecture**

*RadioOncology in Times of Personalized Medicine*

This session is supported by Varian Medical Systems.

Speaker: Michael Baumann, MD, German Cancer Research Center

Introduction by Ben Slotman, MD, PhD, ARS 2018 President, VU University Medical Center

Amsterdam, The Netherlands

**OA06: INTERFRACTION VARIATIONS IN STOMACH VOLUME INCREASE DOSE TO STOMACH AND DUODENUM IN PANCREAS STEREOTACTIC BODY RADIOTHERAPY AND IS MITIGATED BY DAILY ADAPTIVE MAGNETIC RESONANCE IMAGE GUIDED RADIATION THERAPY**

Benjamin Oren Spieler, MD, Nancy El Bared, MD, Kyle Padgett, PhD, Lorraine Portelance, MD, Eric Albert Mellon, MD PhD; Department of Radiation Oncology University of Miami Miller School of Medicine

**OA07: OUTCOMES OF PATIENTS IN THE NATIONAL CANCER DATABASE TREATED NON-SURGICALLY FOR LOCALIZED RECTAL CANCER.**

Hesham Elhalawani, MD1, Pamela K. Allen, PhD1, Omar Abdel-Rahman, MMBC, MSc, MD2, Emma B. Holliday, MD1; 1The University of Texas MD Anderson Cancer Center, 2Ain shams University

**OA08: PATHOLOGIC RESPONSE TO NEOADJUVANT CHEMOTHERAPY AND CHEMORADIATION IN BORDERLINE RESECTABLE ADENOCARCINOMA OF THE PANCREAS**

Joon K. Lee, MD1, Ahmed I. Ghanem, MD1, Charlotte Burmeister, MS2, Hayan Jaratli, MD3, Mohammad Raoufi, MD3, Gazala Khan, MD4, Irina Dobrosotskaya, MD, PhD5, David Kwon, MD6, Farzan Siddiqui, MD, PhD6; 1Department of Radiation Oncology, Henry Ford Hospital; 2Department of Public Health Services, Henry Ford Hospital, 3Department of Pathology, Henry Ford Hospital, 4Department of Hematology and Oncology, Henry Ford Hospital, 5Department of Surgery, Henry Ford Hospital

**OA09: NEOADJUVANT VERSUS ADJUVANT RADIATION THERAPY FOR RESECTABLE PANCREATIC CANCER: A PROPENSITY SCORE MATCHED ANALYSIS**

Sung Jun Ma, BS1,2, Oluwadamilola T. Oladeru, MD3, Joseph Miccio, MD4, Alexander Stessin, MD PhD5; 1University at Buffalo, The State University of New York, 2Jacobs School of Medicine and Biomedical Sciences, 3Harvard Radiation Oncology Program Massachusetts General Hospital, 4Department of Therapeutic Radiology, Yale University School of Medicine, 5Department of Radiation Oncology Stony Brook University Medical Center

**OA10: PATTERNS OF CARE AND FACTORS PREDICTIVE OF OVERALL SURVIVAL IN METASTATIC RECTAL CANCER**

Stacey Scheick, MD, Dustin Boothe, MD, Randa Tao, MD, Shane Lloyd; University of Utah Radiation Oncology

12:15pm - 1:15pm

**Scientific Session #3 – CNS/Pediatrics**

Moderators: Matthew M. Poppe, MD, University of Utah
Gregory Gan, MD, PhD, University of New Mexico

**OA11: TIMING OF RADIOTHERAPY FOR PEDIATRIC PATIENTS WITH PARAMENINGEAL RHABDO-MYOSARCOMA WITH INTRACRANIAL EXTENSION**

Ethan B. Ludmir, MD1, Arnold C. Paulino, MD1, David R. Grosshans, MD1, Mary Frances McAleer, MD, PhD1, Susan L. McGovern, MD, PhD1, Winston W. Huh, MD2, M. Fatih Okcu, MD, MPH3, Leslie M. Harrell, DO, MS4, Anita Mahajan, MD5; 1Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, 2Division of Pediatrics, The University of Texas MD Anderson Cancer Center, 3Department of Pediatricians, Texas Children's Cancer Center, Texas Children's Hospital, Baylor College of Medicine, 4Procure Proton Therapy Center, 5Department of Radiation Oncology, Mayo Clinic
Sunday, May 6, 2018

**OA12: PULSED REDUCED DOSE RATE RE-IRRADIATION (PRDR) USING MODULATED ARC (MARC) IMRT FOR RECURRENT GLIOMAS: INITIAL CLINICAL OUTCOMES OF A NOVEL TECHNIQUE**
Vanica M. Guignard, BS, Sara E. Kelm, BS, Benjamin Gillingham, BS, Selim Y. Fırat, MD, Douglas Prah PhD, Christopher Schultz, MD, Anupriya Dayal MD, Jennifer Connelly, MD, Wade Mueller, MD, Joseph Bovi MD, Malika L Siker MD; Medical College of Wisconsin

**OA13: STEREOTACTIC RADIOSURGERY AND CONCURRENT TARGETED THERAPY: IMPROVING THE RESPONSE RATE FOR BREAST CANCER BRAIN METASTASIS**
Joseph M. Kim, BA¹, Joseph M. Kim, BA¹, Jacob A. Miller, MD², Rupesh Kotecha, MD¹, Samuel T. Chao, MD³,⁴,⁵,⁶,⁷; Manmeet S. Ahuwalia, MD⁴,⁵,⁶,⁷, David M. Peereboom, MD⁴,⁵,⁶,⁷, Alireza M. Mohammadí, MD⁴,⁵,⁶,⁷, Gene H. Barnett, MD, MBA⁴,⁵,⁶,⁷, Erin S. Murphy, MD⁴,⁵,⁶,⁷, Michael A. Vogelbaum, MD, PhD⁴,⁵,⁶,⁷, Lilyana Angelov, MD⁴,⁵,⁶,⁷, Jame Abraham, MD⁴,⁵,⁶,⁷, Halle C. F. Moore, MD⁴,⁵,⁷, G. Thomas Budd, MD⁴,⁵,⁷, John H. Suh, MD⁴,⁵,⁶,⁷; ¹Case Western Reserve University School of Medicine, ²Department of Radiation Oncology Stanford University School of Medicine, ³Department of Radiation Oncology Miami Cancer Institute, ⁴Cleveland Clinic Lerner College of Medicine Department of Radiation Oncology, ⁵Rose Ella Burkhardt Brain Tumor and Neuro-Oncology Center, ⁶Tausigg Cancer Institute, ⁷Cleveland Clinic Foundation

**OA14: APPLICATION OF TUMOR TREATING FIELDS FOR NEWLY DIAGNOSED GLIOBlastOMA MULTIFORME: UNDERSTANDING OF NATIONWIDE PRACTICE PATTERNS AND TRENDS**
Shearwood McClelland III, MD¹, Oluwadamilola Sosanya, BA¹, Timur Mitin, MD, PhD¹, Albert Attia, MD², John H. Suh, MD³, Jerry J. Jaboin, MD, PhD¹; ¹Department of Radiation Medicine, Oregon Health & Science University, ²Department of Radiation Oncology, Vanderbilt University School of Medicine, ³Department of Radiation Oncology, Cleveland Clinic Foundation

**OA15: CLINICAL OUTCOMES OF PATIENTS WITH MELANOMA BRAIN METASTASES TREATED WITH STEREOTACTIC RADIOSURGERY AND IMMUNOTHERAPY**
Aidan M. Burke, MD¹, Michael Carrasquilla, BA², Eshetu Tefera, MS³, Walter C. Jean, MD⁴, Brian T. Collins, MD¹, Amjad N. Anaizi, MD⁵, Geoffrey T. Gibney, MD⁶, Michael B. Atkins, MD⁷, Sean P. Collins, MD, PhD⁸; ¹Georgetown University Department of Radiation Oncology, ²Rush Medical College of Rush University Medical Center, ³Department of Biostatistics and Biomedical Informatics, MedStar Health Research Institute, ⁴Department of Neurosurgery, George Washington University Medical Faculty Associates, ⁵Georgetown University Department of Neurosurgery, ⁶Georgetown University Department of Hematology and Oncology

**OA16: REPEAT WHOLE BRAIN RADIATION THERAPY USING A PULSED REDUCED DOSE RATE TECHNIQUE**
Sara Kelm, BS¹, Vanica M. Guignard, BS¹, Benjamin T. Gillingham, BS¹, Maikel E. Botros, MD², Joseph A. Bovi, MD¹, Christopher J. Schultz MD¹, Jennifer Connelly, MD¹, Malika L. Siker, MD¹; ¹Medical College of Wisconsin, ²Yuma Regional Medical Center

**OA17: RADIOFREQUENCY ABLATION AND RADIATION THERAPY IMPROVE LOCAL CONTROL IN SPINAL METASTASES COMPARED TO RADIOFREQUENCY ABLATION ALONE**
Kavitha Prezzano, MD¹ Author, Dheerendra Prasad, MD¹, Ahmed N Belal, MD², Ronald A. Alberico, MD²; ¹Roswell Park Cancer Institute, Department of Radiation Medicine, ²Roswell Park Cancer Institute, Department of Diagnostic Radiology

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**1:30pm - 3:00pm**
**Case-Based Tumor Board – Head & Neck Cancer (SA-CME)**
*Registration is required to attend this course*

Session Chair: Thomas J. Galloway, MD, Fox Chase Cancer Center
Panelists:
- Jimmy Caudell, MD, PhD, Moffitt Cancer Center
- Steven Chang, MD, Henry Ford Health System
- Kathryn Gold, MD, UC San Diego Health
- Kate Hutcheson, PhD, The University of Texas MD Anderson Cancer Center
- Erich M. Sturgis, MD, MPH, The University of Texas MD Anderson Cancer Center

**5:30pm - 7:00pm**
**Resident vs. Faculty Medical Jeopardy**
*This session is supported by Varian Medical Systems*

Moderator: Join Y. Luh, MD, Dr. Russel Pardoe Radiation Oncology Center

**7:30pm - 9:30pm**
**ARS Social Event**
Monday, May 7, 2018

7:00am - 7:30am  Continental Breakfast  Tuscan IV

7:30am - 8:00am  Presidential Lecture  Tuscan III
Ben Slotman, MD, PhD (VU University Medical Center)

8:00am - 9:00am  Scientific Session #4 – GU/GYN  Tuscan III
Moderators: Anuja Jhingran, MD, The University of Texas MD Anderson Cancer Center
Rachit Kumar, MD, Banner Health

OA18: OUTCOMES OF A DOSE-ESCALATED STEREOTACTIC BODY RADIATION PHASE I/II TRIAL FOR PATIENTS WITH LOW -AND INTERMEDIATE-RISK PROSTATE CANCER
Zaker Rana, MD1, Louis Potters, MD2, Lucille Lee, MD3, Brett Cox, MD4; 1Department of Radiation Medicine, Zucker School of Medicine at Hofstra/Northwell, 2Department of Radiation Medicine, Northwell Health, Hofstra Northwell School of Medicine

OA19: LOW-DOSE-RATE BRACHYTHERAPY AS MONOTHERAPY FOR HIGH-RISK PROSTATE CANCER: 15-YEAR OUTCOMES DATA
Stanislav Lazarev, MD, Jerry Liu, MD, Marcher Thompson, MD, Zahra Ghiassi, MD, PhD, Nelson N. Stone, MD, Richard G. Stock, MD; Icahn School of Medicine at Mount Sinai

OA20: ASSOCIATION OF CIRCULATING TUMOR CELLS (CTCS) AND GENOMIC SIGNATURES IN PROSTATE CANCER PATIENTS
Alan Pollack, MD, PhD, Teresa M. Giret, PhD, Felix M Chinea, PhD, Dewkwoo Kwon, PhD, Thirupandiyur S. Udayakumar, PhD, Brian Marples, PhD, Matthew C. Abramowitz, MD, Jessica Stortz, PhD, Lucia Lam, PhD, Elai Davicioni, PhD, Christine Buerki, PhD, Radka Stoyanova, PhD; University of Miami

OA21: OUTCOMES AFTER SALVAGE THERAPY FOR RECURRENT EARLY STAGE ENDOMETRIAL CANCER
Samual R. Francis, MS, MD1, Bryan J. Ager, MD1, Olivia A. Do, BS2, Yu-Huei Jessica Huang, PhD1, Andrew P. Soisson, MD1, Mark K. Dodson, MD3, Theresa L. Werner, MD4, Jonathan D. Grant, MD5, David K. Gaffney, MD, PhD1; 1Department of Radiation Oncology, Huntsman Cancer Institute at the University of Utah, 2Huntsman Cancer Institute at the University of Utah, 3Department of Obstetrics and Gynecology, Huntsman Cancer Institute at the University of Utah, 4Department of Medicine, Huntsman Cancer Institute at the University of Utah, 5Department of Radiation Oncology, Intermountain Healthcare

OA22: INTER-FRACTIONAL MOTION IN PATIENTS WITH INTACT CERVICAL CANCER TREATED ON A MRI GUIDED EXTERNAL BEAM RADIATION THERAPY SYSTEM
David Asher, MD, Kyle Padgett, PhD, Ricardo Llorente, MD, Benjamin Farnia, MD, Garrett Simpson, MS, Nesrin Dogan, PhD, Lorraine Portelance, MD, FRCP, DABR, FASTRO; Department of Radiation Oncology, University of Miami Miller School of Medicine

OA23: DO VAGINAL RECURRENCE RATES DIFFER AMONG COMMON ADJUVANT VAGINAL BRACHYTHERAPY REGIMENS IN EARLY-STAGE ENDOMETRIAL CANCER?
Bryan J. Ager, MD1, Samual R. Francis, MD1, Olivia A. Do, BS2, Yu-Huei Jessica Huang, PhD1, Andrew P. Soisson, MD1, Mark K. Dodson, MD3, Theresa L. Werner, MD4, Jonathan D. Grant, MD5, David K. Gaffney, MD, PhD1; 1Department of Radiation Oncology, Huntsman Cancer Institute at the University of Utah, 2Huntsman Cancer Institute at the University of Utah, 3Department of Obstetrics and Gynecology, Huntsman Cancer Institute at the University of Utah, 4Department of Medicine, Huntsman Cancer Institute at the University of Utah, 5Department of Radiation Oncology, Intermountain Healthcare

9:00am - 10:00am  Quality & Value in Radiation Oncology and Global Health Panels (SA-CME)  Tuscan III

Quality and Value in Radiation Oncology and Ongoing Efforts in Payment Reform
Speakers: David Beyer, MD, Cancer Centers of Northern Arizona Healthcare
Louis Potters, MD, Zucker School of Medicine at Hofstra/Northwell

Global Radiation Oncology
Speakers: Wilfred Ngwa, PhD, Brigham and Women’s Hospital
Mira Shah, MD, Henry Ford Health System

10:00am - 10:15am  Refreshment Break/Posters in the Exhibit Hall  Tuscan IV
Monday, May 7, 2018

10:15am – 11:00am

**Keynote #2: Lessons from the Animal Kingdom, the Veterinary Clinic, the Abscopal Phenomenon and the Obstetrician’s Office: Why Modern Cancer Immunotherapy Will Succeed**

Tuscan III

Speaker: James S. Welsh, MD, Loyola University Medical Center

11:00am - 11:45am

**Scientific Session #5 – Breast**

Tuscan III

Moderators: Jean Wright, MD, Johns Hopkins University School of Medicine

Cynthia A. Ballenger, MD, 21st Century Oncology

OA24: DUCTAL CARCINOMA IN SITU (DCIS) BREAST CANCER TREATED WITH 3-WEEK ACCELERATED HYPOFRACTIONATED WHOLE-BREAST RADIATION THERAPY AND CONCOMITANT BOOST

Eva Berlin, BA1, Carol White, BA2, Sarah P. Cate, MD1, Susan K. Boolbol, MD2, Manjeet Chadha, MD2;

1Cahn School of Medicine at Mount Sinai, 2Department of Radiation Oncology, Mount Sinai Downtown,
3Department of Surgery, Mount Sinai Downtown

OA25: RESIDUAL LYMPHOVASCULAR SPACE INVASION AFTER NEOADJUVANT CHEMOTHERAPY IN TRIPLICATE NEGATIVE BREAST CANCER INCREASES THE RISK OF LOCOREGIONAL RECURRENCE

Emily Merfeld, BS1, Prashant Gabani, MD, Ashley Weiner, MD, PhD, Laura Ochoa, NP, Maria Thomas, MD, PhD, Imran Zoberi, MD; Washington University School of Medicine in St. Louis

OA26: SIGNIFICANCE OF HORMONE THERAPY & BISPHOSPHONATE USE ON VERTEBRAL COMPRESSION FRACTURE (VCF) INCIDENCE FOLLOWING SPINE STEREOTACTIC BODY RADIATION THERAPY (SBRT) FOR BREAST CANCER METASTASES

Erinna Elibe, BS, David Boyce-Fappiano, MD, Eleanor Walker, MD, Ian Lee, MD, Jack Rock, MD, M. Salim Siddiqui, MD, PhD, F. Siddiqui, MD, PhD; Henry Ford Hospital

OA27: OUTCOME IN PATIENTS TREATED WITH PARTIAL BREAST RECONSTRUCTION OR BILATERAL REDUCTION MAMMOPLASTY AT THE TIME OF BREAST CONSERVING SURGERY (BCS) FOLLOWED BY WHOLE BREAST RADIATION THERAPY (WBRT)

Manjeet Chadha, MD1, Elisabetta Bonzano, MD2, Elnia Zaretsky, MD2, Sarah Cate, MD2,
Susan Boolbol, MD2; 1Cahn School of Medicine at Mount Sinai, 2Northwell Health

11:45am - 12:30pm

**Scientific Session #6 – Head & Neck**

Tuscan III

Moderators: Farzan Siddiqui, MD, PhD, Henry Ford Health System

Danielle Margalit, MD, MPH, Dana Farber Cancer Institute

OA29: LOW RATE OF CONTRALATERAL NECK FAILURE IN T1-2N2B TONSIL PATIENTS TREATED WITH IPSILATERAL NECK RADIATION

Natalie Geier, MD1, Houda Bahig, MD, Jack Phan, MD, PhD, Adam Garden, MD, Vinita Takiar, MD, PhD,
Kevin Redmond, MD; University of Cincinnati

OA30: IN VIVO SCREENING IDENTIFIES ESR1 AS A CLINICALLY RELEVANT TARGET FOR RADIOSENSITIZATION IN HNSCC

Aakash Sheth, BA1, David Molkentine, BS1, Second Author, Kathleen Bridges, BS1, Kumar, PhD1,
Liangpeng Yang, PhD1, Tongxin Xie, MD1, Mitchell Fredrick, PhD2, Jeffrey Myers, MD, PhD2,
Raymond Meyn, PhD1, Curtis Pickering, PhD1, Heath Skinner, MD, PhD2; 1The University of Texas MD Anderson Cancer Center, 2Baylor College of Medicine

OA31: PATTERNS OF FAILURE FOR ORAL CAVITY SQUAMOUS CELL CARCINOMA PATIENTS RECEIVING POST-OPERATIVE RADIOTHERAPY +/- CHEMOTHERAPY

Huaising C. Ko, MD1, Paul M. Harari, MD1, Menggang Yu, PhD2, Aaron M. Wieland, MD2,
Gregory K. Hartig, MD1, Timothy M. McCulloch, MD1, Matthew E. Witek, MD1; 1Department of Human Oncology, Carbone Comprehensive Cancer Center, University of Wisconsin School of Medicine and Public Health,
2Department of Biostatistics and Medical Informatics, Carbone Comprehensive Cancer Center, University of Wisconsin School of Medicine and Public Health,
3Division of Otolaryngology and Head and Neck Surgery, Department of Surgery, Carbone Comprehensive Cancer Center, University of Wisconsin School of Medicine and Public Health
Monday, May 7, 2018

**OA32: CHRONIC RADIATION-ASSOCIATED DYSPHAGIA IN OROPHARYNGEAL CANCER SURVIVORS: TOWARDS AGE-ADJUSTED DOSE CONSTRAINTS FOR DEGLUTITIVE MUSCLES**

Kaitlin Christopherson, MD1†, Alokandna Ghosh, MD1, Abdallah Sherif Radwan Mohamed, MD, MSc1.5.6, Mona Jomaa, MD, PhD1, G. Brandon Gunn, MD1, Liz Marai, PhD1, Guadalupe Canahuate, PhD1, David Vock, PhD1, Timothy Dale, BS1.5, Jayashree Kalpathy-Cramer, PhD1, Jay Messer, BS1.001, Adam S. Garden, MD1†, Hesham El Halawani, MD1, Steven J. Frank, MD1, Jan Lewin, PhD2, Stephen Y. Lai, MD, PhD1, Beth M. Beadle, MD, PhD1, William H. Morrison, MD1, Jack Phan, MD, PhD1, Heath Skinner, MD, PhD1, Neil Gross, MD1, Renata Ferrarotto, MD2, Randal S. Weber, MD2, David Rosenthal, MD1, Katherine Hutcheson, PhD1.2, Clifton D. Fuller, MD, PhD1.8,11; Departments of Radiation Oncology, 2Head and Neck Surgery, 3Thoracic & Head and Neck Oncology, The University of Texas MD Anderson Cancer Center, 4Department of Biostatistics, University of Texas School of Public Health, 5Baylor College of Medicine, Houston, 6Department of Clinical Oncology, University of Alexandria, 7Athinoula A. Martinos Center for Biomedical Imaging/Massachusetts General Hospital/Massachusetts Institute of Technology, 8Medical Physics Program, The University of Texas Graduate School of Biomedical Sciences, 9The University of Texas Health Science Center at Houston Medical School, 10Department of Radiation Oncology, The University of Texas Medical Branch, Galveston, TX, USA.

1:00pm - 2:30pm

**Case-Based Tumor Board - Gynecologic Cancer (SA-CME)**

*Registration is required to attend this course*

Session Chair: Tracy Sheretz, MD, UCSF Radiation Oncology

Panelists:
- Elizabeth Kidd, MD, Stanford University Medical Center
- Yukio Sonoda, MD, Memorial Sloan Kettering
- William Small, Jr., MD, Loyola University Medical Center

Tuesday, May 8, 2018

7:00am - 7:30am

**Continental Breakfast**

Tuscan IV

7:30am - 8:00am

**Business Meeting**

Tuscan III

8:00am - 8:45am

**Scientific Session #7 – Young Oncologist Essay Awards**

Moderators:
- Matthew C. Abramowitz, MD, University of Miami
- Ritsuko U. Komaki, MD, The University of Texas MD Anderson Cancer Center

**OA34: MULTIMODAL IMAGING OF PATHOLOGIC RESPONSE TO CHEMORADIATION IN ESOPHAGEAL CANCER**

Penny Fang, MD, Benjamin C. Musall, MS, Jong Bum Song, PhD, Amy C. Moreno, MD, Brian P. Hobbs, PhD, Brett W. Carter, MD, University of Texas MD Anderson Cancer Center

**OA35: IMPACT OF STAGING 68GA-PSMA-11 PET SCANS ON RADIATION TREATMENT PLANS IN PATIENTS WITH PROSTATE CANCER**

Susan Y. Wu, MD1, Lauren Boreta, MD1, Katsuto Shinohara, MD1, Hao Nguyen, MD, PhD1, Peter Carroll, MD1, Antonio Westphalen, MD1, Thomas Hope, MD1, Albert J. Chang, MD, PhD2, †University of California, San Francisco, †University of California, Los Angeles

**OA36: COMPARATIVE EFFECTIVENESS AND TOXICITY OF CETUXIMAB OR CISPLATIN WITH CONCURRENT RADIATION FOR LOCOREGIONALLY ADVANCED SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK: A POPULATION-BASED ANALYSIS**

Michael Xiang, MD, PhD, Floyd Christopher Holsinger, MD, Michelle Chen, MD, Alexander Dimitrios Colevas, MD, Beth Michelle Beadle, MD, PhD, Stanford University
Tuesday, May 8, 2018

OA37: HIGH RATE OF DISTANT METASTASIS IN HIGH-METASTATIC NODE NUMBER HUMAN PAPILLOMAVIRUS-POSITIVE OROPHARYNGEAL CARCINOMA
Nicholas C. J. Lee, BSc, Jacqueline R. Kelly, MD, MSc, Henry S. Park, MD, MPH, Third Author, Yi An, MD, Zain A. Husain, MD; Department of Therapeutic Radiology, Yale School of Medicine,

OA38: ONCOLOGIC AND FUNCTIONAL OUTCOMES OF PATIENTS WITH EARLY OROPHARYNGEAL CANCER TREATED WITH TRANSORAL ROBOTIC SURGERY VS PRIMARY CHEMORADIATION: A SINGLE INSTITUTIONAL EXPERIENCE
Bhaswanth Dhanireddy, MD, Nicolas P Burnett, MD; Department of Radiation Medicine, Markey Cancer Center, University of Kentucky

8:45am - 9:45am
Education Session: Lung Cancer (SA-CME) Tuscan III
The Latest Data, Indications, and Biological Basis of the Use of Immunotherapy with Radiation
Speakers: David M. Naeger, Jr., MD, University of California, San Francisco
Billy Loo, Jr., MD, PhD, Stanford University

Education Session: Immunotherapy (SA-CME) Tuscan III
Speaker: Chandan Guha, MD, PhD, Montefiore Medical Center

9:45am - 10:30am
Scientific Session #8 – Physics/Biology Tuscan III
OA39: INTEGRATION OF MR GUIDED LINEAR ACCELERATOR FOR TREATMENT OF MULTIPLE BRAIN METASTASES WITH SINGLE-ISOCENTER USING STEREOTACTIC RADIOSURGERY
Ning Wen, PhD, Joshua Kim, PhD, Anthony Doemer, MS, Carri Glide-Hurst, PhD, Indrin J. Chetty, PhD; Henry Ford Hospital Department of Radiation Oncology

OA40: DEEP LEARNING-BASED AUTOSEGMENTATION FOR HEAD AND NECK RADIOTHERAPY
Jason W. Chan, MD*, Vasant Kearney, PhD*, Samuel Haaf, MS, Susan Wu, MD, Madeleine Bogdanov, BS, Nayha Dixit, MS, Atchar Sudhyadhom, PhD, Josephine Chen, PhD, Sue S. Yom, MD, PhD, and Timothy D. Solberg, PhD; University of California, San Francisco (*These two authors contributed equally)

OA41: 18F-EF5 PET-BASED IMAGEABLE HYPOXIA PREDICTS FOR LOCAL CONTROL IN TUMORS TREATED WITH CONFORMAL RADIOTHERAPY
Yushen Qian, MD1, Yufei Liu, BS1, Rie Von Eyben, MS1, Justin N. Carter, BA1, Erqi L. Pollem, MD, MS1, Jeremy P. Harris, MD, MPhil1, Nicolas D. Prionas, MD, PhD1, Michael S. Binkley, MD, MS1, Amanda Simmons, MA1, Maximilian Diehn, MD, PhD, Frederick T. Chin, PhD1, David B. Shultz, MD, PhD2, J. Martin Brown, PhD1, Peter G. Maxim, PhD1, Albert C. Koong, MD, PhD2, Edward E. Graves, PhD2, Billy W. Loo Jr, MD, PhD2; Department of Radiation Oncology, Stanford University School of Medicine, 2Department of Radiology, Stanford University School of Medicine, 3Department of Radiation Oncology, Princess Margaret Cancer Centre, 4Department of Radiation Oncology, MD Anderson Cancer Center

OA42: DEMONSTRATION OF SAFETY AND FEASIBILITY OF HYDROGEL MARKING OF THE PANCREAS-DUODENUM INTERFACE FOR IMAGE-GUIDED RADIATION THERAPY (IGRT) IN A PORCINE MODEL: IMPLICATIONS IN IGRT FOR PANCREATIC CANCER PATIENTS
Avani D. Rao, MD1, Eun Ji Shin, MD2, Sarah E. Beck, DVM, PhD2, Caroline Garrett, DVM2; Seong-Hun Kim, MD3,4, Nam Ju Lee, MD4, Eleni Liapi, MD5, John Wong, PhD1, Joseph Herman, MD1, Amol Narang, MD1, Kai Ding, PhD1, Departments of 1Radiation Oncology and Molecular Radiation Sciences, 2Gastroenterology, 3Molecular and Comparative Pathobiology, 4Radiology and Radiological Sciences, Johns Hopkins School of Medicine, 5Department of Internal Medicine, Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Corresponding author: Kai Ding, PhD, Department of Radiation Oncology and Molecular Radiation Sciences, Johns Hopkins Sidney Kimmel Comprehensive Cancer Center

OA43: DELINEATION OF A CARDIAC PRV USING REAL-TIME MAGNETIC RESONANCE IMAGING FOR CARDIAC PROTECTION IN THORACIC AND BREAST RADIATION THERAPY
Lauren E. Henke, MD, Jessica Contreras, MD, Thomas Mazur, PhD, Olga Green, PhD, Clifford G. Robinson, MD, Maria A. Thomas, MD, PhD; Department of Radiation Oncology, Washington University in St. Louis School of Medicine
Tuesday, May 8, 2018

10:30am - 10:45am  Refreshment Break/Posters in Exhibit Hall  Tuscan IV

10:45am - 11:30am  History Panel  Tuscan III
Speakers: Eric Hall, D.Phil., D.Sc., Columbia University
Martin Colman, MD, The University of Texas

11:30am - 12:30pm  Scientific Session #9 – Quality/Policy/PROs/Support  Tuscan III
Moderators: Wade L. Thorstad, MD, Washington University School of Medicine in St. Louis
Laura M. Freedman, MD, University of Miami

OA44: MENTAL HEALTH DISORDERS ARE MORE COMMON IN COLORECTAL CANCER SURVIVORS AND ASSOCIATED WITH DECREASED OVERALL SURVIVAL
Shane Lloyd1, David Baraghoshi2, Randa Tao1, Ignacio Garrido-Laguna1, Glynn Weldon Gilcrease III1, Jonathan Whisenant1, John R Weis1, Courtney Scaife1, Thomas Bartley Pickron1, Lyen C Huang1, Marcus M Monroe1, Sarah Abdelaziz2, Jihye Park1, Yuan Wan3, Alison M Fraser3, Ken R Smith3, Vikrant Deshmukh4, Michael Newman5, Kerry G. Rowe1, John Snyder7, Niloy Jewel Samadder6, Mia Hashibe2; 1Department of Radiation Oncology, University of Utah Huntsman Cancer Institute, 2Division of Public Health, Department of Family and Preventive Medicine, and Huntsman Cancer Institute, University of Utah School of Medicine, 3Division of Medical Oncology, Department of Internal Medicine, University of Utah Huntsman Cancer Institute, 4Department of Surgery, University of Utah Huntsman Cancer Institute, 5Pedigree and Population Resource, Population Sciences, Huntsman Cancer Institute, 6University of Utah Health Care CMIO Office, 7Intermountain Healthcare, 8Division of Gastroenterology and Hepatology, Mayo Clinic

OA45: EVALUATION OF THE METASTATIC SPINE DISEASE MULTIDISCIPLINARY WORKING GROUP ALGORITHM (WGA) AS PART OF A MULTIDISCIPLINARY SPINE TUMOR BOARD
Soumon Rudra, MD1, Mary Lauman, RN1, Adam N. Wallace, MD1, Michael C. Roach, MD1, Jiayi Huang, MD1, Christina Tsien, MD1, Jeffrey Bradley, MD1, Paul Santiago, MD1, Jacob Buchowski, MD, MS1, Jack Jennings, MD PhD1, Clifford Robinson, MD1, 1Washington University, 2Consulting Radiologists Ltd.

OA46: COST-EFFECTIVENESS OF PROTON BEAM THERAPY FOR ONCOLOGIC MANAGEMENT
Vivek Verma, MD1, Mark V. Mishra, MD2, Charles B. Simone, II, MD2; 1Department of Radiation Oncology, University of Nebraska Medical Center, 2Department of Radiation Oncology, University of Maryland Medical Center

OA47: ELECTRONIC COLLECTION OF PATIENT REPORTED SYMPTOM ASSESSMENT SCORES IN A LARGE CANCER POPULATION
Peter A. S. Johnstone, MD1, Heather S. Jim, PhD1, Noelle L. Williams2, H. Michael Yu, MD1, Diane Portman, MD1, Hailey W. Bulls, PhD1; Moffitt Cancer Center, 1Thomas Jefferson University

OA48: PROSPECTIVE IN-SILICO QUALITY ASSURANCE STUDY OF CONTOURING TARGET VOLUMES IN THORACIC TUMORS WITHIN A COOPERATIVE GROUP SETTING
Hesham Elhalawani, MD, MS1 Abdallah Mohamed, MD, MS1, Fran Laurie, BS2, Laurie E. Gaspar, MD, MBA, FASTRO1, Thomas J. Fitzgerald, MD4, Paul Okunieff, MD1, Clifton D. Fuller, MD, PhD16, Charles R. Thomas Jr., MD; 1Radiation Oncology, University of Texas MD Anderson Cancer Center, 2Imaging and Radiation Oncology Core Rhode Island, University of Massachusetts Medical School, 3University of Colorado Denver, 4Department of Radiation Oncology, University of Massachusetts Medical School, 5Department of Radiation Oncology, University of Florida, 6Medical Physics Program, The University of Texas Graduate School of Biomedical Sciences, 7Department of Radiation Medicine, Knight Cancer Institute, Oregon Health & Science University
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<td>P01: LOCAL CONTROL OUTCOMES AND THE ROLE OF POSTMASTECTOMY RADIATION IN WOMEN WITH HEREDITARY BRCA MUTATIONS –</td>
<td>Parima Daroui, MD, PhD, Jonathan Moayyad MD, Karen Lane MD; University of California Irvine</td>
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<td>P02: REPRESENTATION OF RADIATION ONCOLOGY RESEARCH AT AN INTERDISCIPLINARY ONCOLOGY CONFERENCE</td>
<td>Matthew Culbert, BA1, Rebecca A Shuford, BA2, Gregory Biedermann, MD1, Audrey Wallace, MD2,</td>
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<td>1University of Missouri, 2University of Alabama at Birmingham</td>
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<td>P03: IMPACT OF BREAST BOARD POSITION ON SKIN DOSE IN PATIENTS RECEIVING PRONE BREAST RADIOTHERAPY</td>
<td>Victor Gonzalez, MD, John Gloss, PSM; University of Arizona</td>
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<td>P04: HIGH VOLUME OF LOW DOSE RADIATION DELIVERED TO THE LEFT ANTERIOR DESCENDING (LAD) ARTERY MAY INCREASE RISK FOR CORONARY ARTERY STENOSIS IN LEFT-SIDED BREAST CANCER –</td>
<td>Caitlin A. Schonewolf, MD, MS, Jennifer Vogel, MD, Michael LaRiviere, Neil K. Taunk, MD, MS,</td>
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<td>Fifth Author, James D. Kolker, MD, Suneel N. Nagda, MD; Bonnie Ky, MD, MSCE; Gary M. Freedman, MD; University of Pennsylvania</td>
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<td>P05: DOES SENTINEL LYMPH NODE BIOPSY IMPACT SYSTEMIC THERAPY RECOMMENDATIONS? –</td>
<td>Serguei A. Castaneda, MD12, Diana Dickson-Witmer, MD, FACS1, Hunter Witmer, BS1, Emily Murphy,</td>
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<td>MD1, Dennis R. Witmer, MD, FACS1, Robert Hall-McBride, CTR1, SuJung Park, MD1, Ramya Varadarajan,</td>
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<td>MD1, Michael Guarino, MD1, Helen F. Graham Cancer Center &amp; Research Institute, Christina Care</td>
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<td>Health System, 2Radiation Oncology Department at Drexel University College of Medicine and Hahnemann University Hospital</td>
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<td>P06: IDENTIFYING GENETIC FACTORS INFLUENCING RADIATION-INDUCED CARDIAC TOXICITY USING NOVEL GENETIC RAT MODELS –</td>
<td>Aronne M. Schottstaedt, MS2, Rachel Schlaak, BS1, Anne Frei, BS1, Brian Fish, BS1, Leanne</td>
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<td>Hartmann, BS1, Tracy Gasperetti, BS1, Michael J. Flister, PhD1, Meetha Medhora, PhD1, Jennifer</td>
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<td>L. Strande, MD, PhD1, Carmen Bergom, MD, PhD1, 2Medical College of Wisconsin, 2Case Western</td>
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<td>P07: SIMILAR TOXICITY AND SURVIVAL OUTCOMES AT LOWER DAILY TREATMENT TIMES FOR GLIOBLASTOMA PATIENTS TREATED WITH VOLUMETRIC ARC RADIATION COMPARED TO INTENSITY MODULATED RADIATION –</td>
<td>Tommy Sheu, MD, MPH2, Tina M. Briere, PhD2, Mary Frances McAleer, MD, PhD1; 1Department of</td>
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<td>Radiation Oncology The University of Texas MD Anderson Cancer Center, 2Department of Radiation</td>
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<td>Physics The University of Texas MD Anderson Cancer Center</td>
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<td>P08: RETROSPECTIVE COMPARISON OF GAMMAKNIFE RADIOSURGERY AND HYPOFRACTIONATED RADIOTHERAPY AS TREATMENT OPTIONS FOR INTRACRANIAL METASTASES MEASURING 4CC OR LARGER –</td>
<td>Emily C. Daugherty, MD2, Ayesha Ropri, MS1, Daniel Bassano, PhD2, Margaret Formica, PhD1, Anna</td>
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<td>Shapiro, MD2, Michael Lacombe, MD2, Paul Arigides, MD2, Seung Shin Hahn, MD2; 2SUNY Upstate</td>
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<td>Medical University, 2Upstate Cancer Center Department of Radiation Oncology SUNY Upstate</td>
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<td>Medical University, 2SUNY Upstate Medical University Department of Public Health and Preventative Medicine</td>
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<td>P09: COMBINED USE OF RADIOSURGERY WITH CONCURRENT PD-1/PD-L1 INHIBITION FOR METASTATIC BRAIN LESIONS OF NSCLC. –</td>
<td>Gregory Azzam, MD, PhD, Wungki Park, MD, Eric Mellon, MD, PhD, Arnold Markoe, MD, Nagy</td>
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<td>Elsayyad,MD, FACCP, Gilberto Lopes MD, MBA, Lorraine Portelance, MD, FRCPC, DABR, FASTRO; Miller School of Medicine, University of Miami, Sylvester Comprehensive Cancer Center</td>
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<td>P10: PROOF-OF-PRINCIPLE STUDY OF HYPERBARIC OXYGEN (HBO) AS A RADIOSENSITIZER PRIOR TO STEREOTACTIC RADIOSURGERY (SRS) FOR BRAIN METASTASES (NCT01850563) –</td>
<td>Alan C. Hartford, MD, PhD, FACS5, Jay C. Buckley, Jr, MD1, David Roberts, MD2, Zhongze Li, PhD2, Clifford J. Eskey, MD, Divya Ravi, MS1; 1Section of Hyperbaric Medicine Dartmouth-Hitchcock Medical Center, 2Section of Neurosurgery Dartmouth-Hitchcock Medical Center, 3Data Science Norris Cotton Cancer Center Dartmouth-Hitchcock Medical Center, 4Department of Radiology Dartmouth-Hitchcock Medical Center, 5Section of Radiation Oncology Dartmouth-Hitchcock Medical Center, 6Office of Clinical Research Norris Cotton Cancer Center Dartmouth-Hitchcock Medical Center</td>
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<td>P11: SPINE STEREOTACTIC RADIOSURGERY: OUTCOMES AND PREDICTORS OF LOCAL RECURRENCE –</td>
<td>Kiran A. Kumar, MD1, Dylann Fujimoto, BS1, Evan C. White, MD2, Iris C. Gibs, MD1, Clara Y.H. Choi, MD, PhD1, Scott G. Soltsy, MD1; 1Stanford University, 2University of California San Diego, 3Department of Radiation Medicine, Oregon Health &amp; Science University</td>
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<td>P12: STEREOTACTIC RADIOSURGERY FOR MALIGNANT INTRADURAL AND INTRAMEDULLARY TUMORS OF THE SPINE –</td>
<td>Erinnma Elibe, BS, David Boyce-Fappiano, Ian Lee, MD, Jack Rock, MD, M, Salim Siddiqui, MD, PhD, Farzan Siddiqui, MD, PhD; Henry Ford Hospital</td>
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<td>P13: TREATMENT OF THE VENTRAL INTERMEDIATE NUCLEUS FOR MEDICALLY REFRACTORY TREMOR: A COST-ANALYSIS OF STEREOTACTIC RADIOSURGERY VERSUS DEEP BRAIN STIMULATION –</td>
<td>Sherwood McClelland III, MD, Jerry J. Jaboin, MD, PhD; Department of Radiation Medicine, Oregon Health &amp; Science University</td>
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<td>P14: COST EFFECTIVENESS OF RADIATION AND CHEMOTHERAPY FOR HIGH-RISE LOW GRADE GLIOMA –</td>
<td>Yushen Qian, MD1, Satoshi Maruyama, MD, MPH1, Haju Kim, BS2, Erqi L. Poliom, MD12, Kiran A. Kumar, MD1, Jeremy P. Harris, MD, MS1, Alexander L. Chin, MD, MBA1, Allison Pitt, MS23, Eran Bendavid, MD, MS2, Douglas K. Owens, MD, MS4, Ben Y. Durkee, MD, PhD1, Scott G. Soltsy, MD1; 1Department of Radiation Oncology, Stanford University School of Medicine, 2Department of Health Research and Policy, Stanford University, 3Division of Management Science and Engineering, Department of Engineering, Stanford University, 4VA Palo Alto Health Care System, Palo Alto California; and Center for Primary Care and Outcomes Research/Center for Health Policy, Department of Medicine, Stanford University</td>
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<td>P15: RECTAL CANCER IN PATIENTS LESS THAN 50 YEARS OLD: PRESENTING SYMPTOMS, STAGING AND TREATMENT DECISIONS IN A SINGLE INSTITUTION –</td>
<td>Marcher Thompson, MD, Stanislav Lazarev, MD, Zahra Ghiassi, MD, PhD, Michael Buckstein, MD, PhD; Radiation Oncology Department Icahn School of Medicine at Mount Sinai</td>
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P55: ASSESSMENT OF INTERNATIONAL PATIENT ACCESS TO PEDIATRIC ONCOLOGY TREATMENT RESOURCES AT THE UNIVERSITY OF MIAMI AND JACKSON HEALTH SYSTEMS FROM 2007-2016 – Shahil Mehta, MS4, Benjamin Farnia, MD, Natalie Logie, MD, Arnold Markoe, MD, Jessica Meshman, MD, Shefali Gajjar, MD; Department of Radiation Oncology, University of Miami Sylvester Comprehensive Cancer Center

P56: A PRELIMINARY STUDY OF ALTERNATION OF APPARENT DIFFUSION COEFFICIENTS (ADC) AFTER STEREOTACTIC BODY RADIOTHERAPY (SBRT) IN HUMAN NON-SMALL CELL LUNG CANCER (NSCLC) CELL LINES – Yuenan Wang, PhD,1 Kun Jing, PhD,1 Yunge Zhao, MD, PhD,1 John P. Mugler III, PhD,1 1Department of Radiation Oncology University of Virginia, 2Department of Radiology and Biomedical Engineering University of Virginia, 3Postdoctoral Fellow Department of Thoracic Surgery University of Virginia

P57: THE ACCURACY OF STEREOTACTIC RADIOSURGERY WITH CONE BEAM COMPUTED TOMOGRAPHY IMAGE GUIDANCE FOR TRIGEMINAL NEURALGIA – Joon K. Lee, MD, Karen C. Snyder, MS, Haisen Li, PhD, Yimei Huang, PhD, Ning Wen, PhD; Department of Radiation Oncology, Henry Ford Health System

P58: MULTIPLE RECURRENCES OF GRANULAR CELL TUMOR IN THE SKIN: A CASE REPORT AND REVIEW OF THE LITERATURE Samantha Stubbs, BS, Gary D. Lewis, MD, Haris Vakil, BS, Sandra S. Hatch, MD, Melissa M. Joyner, MD; Department of Radiation Oncology, the University of Texas Medical Branch at Galveston

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