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LOYOLA MEDICINE

### Loyola University Health System Radiation Oncology Newsletter

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Message from the Chairman

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Pictured is Dr. Alec Block (top row, second from right) with fellow ASTRO Resident Clinical/Basic Science Research Award recipients.



## **ASTRO 2015**

Over 20 Loyola faculty and staff were selected to present their research to peers and colleagues at the 2015 American Society for Radiation Oncology (ASTRO) annual meeting in San Antonio, TX, October 18-21.

Resident physician **Dr. Alec Block** (PGY-4) with mentorship from **Dr. Matthew Harkenrider**, **Dr. Murat Surucu**, and **Dr. John C. Roeske** gave an oral presentation "Dual Energy Fluoroscopy for Markerless Motion Tracking of Lung Tumors in SBRT" at the Best in Physics section at 2015 ASTRO. **Dr. Block** also was a recipient of the ASTRO Resident Clinical/Basic Science Research Award.

Other highlights include an oral presentation by **Dr. William Small, Jr.** on "Multidisciplinary Management of Head and Neck and Gastrointestinal Cancer."

Stritch School of Medicine student **Andrew Woerner** with mentorship from **Dr. Roeske**, **Dr. Harkenrider**, **Dr. Surucu** presented "A Multi-Institutional Study to Assess Adherence to Lung SBRT Planning Goals."

## Faculty Updates

**Dr. Small** and **Dr. Bahman Emami** were named to the "Top Doctors" list in the CHICAGO magazine, January 2016 issue.

**Dr. Tarita Thomas** recently was appointed to the NRG Oncology General GI Committee, the CRC (colorectal cancer) Core Committee, and the Non CRC Core Committees.

**Dr. Thomas** recently was appointed to the Loyola Medical School Admissions committee.

**Dr. Eun-Kyoung Breuer** recently was appointed to the NRG Oncology Breast Cancer Committee.

**Dr. Harkenrider** recently was appointed to the NRG Oncology Lung Cancer Committee

**Dr. Roeske** recently completed his term as President of the Midwest AAPM Chapter.

Last fall, **Dr. Surucu** was elected Treasurer of the Midwest AAPM Chapter.

**Dr. Small** served as a faculty member and guest speaker at the GCIG CCRN Cervical Cancer Educational Symposium and Clinical Trials Workshop in Bangkok, Thailand from January 29 – 30, 2016. The aim of the CCRN is to facilitate clinical trials for cancer of the cervix at oncology research and treatment sites in countries where this disease is a burden and national research groups are not yet established.







Pictured is Practice Director Teresita McCoo with the healthcare delegations from Nigeria and Kenya

### New Initiatives

#### Healthcare delegations from Nigeria and Kenya visit Loyola

On November 16, 2015, the Loyola University Department of Radiation Oncology hosted healthcare delegates from Nigeria and Kenya as part of a Reverse Trade Mission (RTM) organized by the U.S. Trade and Development Agency (USTDA). The purpose of the RTM was to familiarize delegates with leading U.S. healthcare technologies and best practices in procurement. Radiotherapy was of particular interest to the delegation in light of the significant increase in cancer incidence over the past decade.

The group was welcomed by LUHS CEO Larry Goldberg. Dr. Small, Dr. Emami, Dr. Abhishek Solanki, Dr. Roeske, and Practice Director Teresita McCoo gave presentations to the delegation on topics including the History of Radiotherapy, Unmet Needs, Global Outreach, Technological Aspects of Radiotherapy, Web Based Peer Review Opportunities, Cost Efficiency of Radiotherapy and the Return on Investment. The delegation also enjoyed a brief tour of our LOC clinic.

#### HDR prostate brachytherapy

We are one of only a few centers in Illinois to offer high dose rate (HDR) prostate brachytherapy, and are the only academic center in the Chicagoland area. **Dr. Solanki** and **Dr. Harkenrider** are the two primary brachytherapists performing this procedure at Loyola. Our HDR program continues to thrive and is one of our fastest growing programs. Since we began the program in late September 2015, we have treated 18 patients with this approach in 4 months.

As part of our academic mission, we recently opened a prospectively maintained database of patients treated with HDR prostate brachytherapy at Loyola, which we hope to use to help advance the treatment of prostate cancer patients by optimizing patient selection and maximizing the therapeutic ratio. Additionally, we are developing a phase I/II trial of salvage imageguided HDR brachytherapy for patients with biopsy-proven local recurrence after definitive external beam radiotherapy.

For more information on our prostate brachy therapy program, please contact Dr. Solanki at Abhishek.Solanki@lumc.edu or call 708-216-2729.







## **Ongoing Initiatives**

#### MRI-based Gynecologic Brachytherapy

Under the leadership of **Dr. Harkenrider**, our brachytherapy and special procedures program continues to flourish, transitioning into a truly state-of-the art image-based brachytherapy. Since treating our first patient in July 2014, our MRI-based cervical brachytherapy program has evolved. Using an MRI compatible tandem and ovoid applicator, we can obtain an MRI after the applicator is placed. In February 2016, we began using the Vienna-style hybrid tandem and ring applicator with MRI-based treatment planning. This allows for individualized needle placement through the ring which improves the ability to treat the tumor to a high dose while simultaneously minimizing dose to the bladder and rectum. We have also created a fully MRI-compatible interstitial brachytherapy program. We use MRI-compatible needles and templates to customize the implant for the patient's needs. The patient undergoes an MRI with the implant in place for MRI-based treatment planning. These advances have taken a significant collaboration with the departments of gynecologic oncology, radiology, and anesthesiology. It is truly this multi-disciplinary collaboration which has made our program so successful.

These advances in gynecologic brachytherapy have led to multiple research endeavors. We are investigating the role of MRI and PET/CT during and after treatment to help predict response to treatment through an NIH grant in collaboration with Dr. Nina Mayr at the University of Washington. We will be participating in the EMBRACE Il study which utilizes advanced treatment planning, delivery, and image-guidance for external beam radiation therapy. The study requires MRI-based brachytherapy with advanced use of the Vienna hybrid applicator resulting in high doses to the tumor and lower than ever doses to the bladder, rectum, and sigmoid colon. Dr. Harkenrider and Dr. Abbie Diak have been awarded the ESTRO Mobility Grant to study these techniques further at the University of Vienna. We recently published our review of image-based treatment for cervical cancer with an emphasis on the use of MRI (Harkenrider, et al. IJROBP 92(4):921-34). Many other studies are in progress at Loyola to continue the advancement of MRI-based gynecologic brachytherapy.

Representative case of MRI-based gynecologic brachytherapy. Reference: Harkenrider, et al. (2015) Image-Based Brachytherapy for the Treatment of Cervical Cancer. Int J Radiat Oncol Biol Phys. 92(4):921-34. PMID: 26104944.

For more information on MRI-based gynecologic brachytherapy program, please contact Dr. Harkenrider at MHarkenrider@lumc.edu or call 708-216-2729.



#### PROTON BEAM RADIOTHERAPY

In early 2015, Loyola initiated a partnership with the Northwestern Medicine Chicago Proton Center in Warrenville (chicagoprotoncenter.com) to provide proton beam therapy as a treatment option for the patients under our care. Access to proton beam therapy is not only an invaluable clinical addition that may benefit our patients but also has expanded our research program and the education of our residents and medical students. Through an NIH grant (Novel, Practical and Affordable Range Determination Methodology for Proton Therapy), Loyola physicians have been working with colleagues at the Proton Center in the development of proton radiography and the design of a novel proton CT scanner, which should aid in the precise determination of proton beam range.

# For more information on proton beam radiotherapy, please contact Dr. Welsh at James.Welsh@lumc.edu or call 708-202-7091.

#### **IORT**

The intraoperative radiotherapy (IORT) program at Loyola continues to grow. Since its inception in March 2014, and as of January 2016, we have treated a total of 39 patients. Using the INTRABEAM system (Zeiss Medical) equipped with a variety of site specific applicators (spherical, flat, surface, needle, etc.) designed to treat a wide range of cancers, each IORT treatment plan undergoes rigorous clinical, physics, and radiation safety OA protocol.

Each Loyola patient receiving IORT is offered enrollment on one of several site-specific protocols. Our staff physicians and physicists have been invited to present their research findings at several national and international meetings. **Dr. Emami, Dr. Mehee Choi, Dr. Anil Sethi, Dr. Karan Shah**, and **Dr. Small** have presentations at the upcoming First North America INTRABEAM-IORT Users meeting.

*For more information on IORT at Loyola, please call* 708-216-2729.



#### Kyphoplasty-IORT

Our phase I trial of the combination of kyphoplasty and intraoperative radiotherapy for patients with pain from pathologic compression fractures continues to accrue patients. Pertinent eligibility criteria include:

- Histologically diagnosed solid malignancy with spinal metastasis and ≥10% loss of vertebral body height
- 2) Life expectancy of at least 3 months
- 3) Age  $\geq$  50 years
- 4) Karnofsky performance status ≥ 70%
- 5) Numeric Pain Rating Score  $\geq$  3
- 6) Maximum tumor diameter of ≤3 cm

We will be presenting our preliminary experience at the Zeiss Users meeting from February 19-20, 2016 and look forward to completing our trial and participating in an international randomized trial in development comparing external beam radiotherapy and kyphoplasty-IORT for this group of patients.

# For more information on kyphoplasty-IORT at Loyola, please contact Dr. Solanki at Abhishek.Solanki@lumc.edu or call 708-216-2729.

#### Pancreas-IORT

Our phase I trial of the use of intraoperative radiotherapy for patients with resectable pancreas cancer continues to accrue patients. Eligibility criteria include:

- 1) Pathologically confirmed pancreatic adenocarcinoma.
- 2) Age  $\geq$  18 years.
- 3) Performance status ECOG 0-1.
- 4) Patient must have resectable disease. In order to be resectable the following criteria must be met:
  - a) Absence of distant metastases.
  - b) Clear fat planes around the celiac axis, hepatic artery, and superior mesenteric artery .

- c) Absence of direct involvement of inferior vena cava or aorta.
- d) If superior mesenteric vein (SMV) or SMV-portal vein confluence occlusion the portion must be deemed reconstructable by the surgeon.

#### For more information on intraoperative radiation therapy for resectable pancreas cancer please contact Dr. Thomas at tathomas@lumc.edu or call 708-216-2729.

#### Stereotactic Radiosurgery

At Loyola we have a long history of radiosurgery extending back to 1992. Initially used in brain, improvements in the technology have allowed us to expand treatments to nearly all body sites. Building upon our 10 year experience of greater than 1000 cases using computerized kV to kV image fusion, in late 2015 we moved to the use of fully three dimensional CT to CT on line real time image fusion to further improve our set up accuracy. We combine the CT localization with our 8 year experience in the use of treatment couches with 6 degrees of freedom to place the patient in the ideal position for treatment.

As 2016 arrives we will see the installation of the Varian Edge<sup>™</sup> Accelerator a machine dedicated to high precision radiosurgery with both single dose and fractionated capabilities and sub millimeter isocenter precision. Our percentage of frameless intracranial stereotactic cases is also increasing as we incorporate improved patient monitoring with the use of novel optical surface matching and monitoring guidance technology during treatment allowing for greater patient comfort by alleviating the need for an invasive stereotactic frame while maintaining millimeter level treatment accuracy. Each of our cases involves close multidisciplinary input from our surgeons and other referring physicians.

For more information on radiosurgery at Loyola, please contact Dr. Edward Melian at 708-216-2729.

## **Clinical Updates**

#### Loyola Outpatient Center

There is a lot happening in the Loyola Outpatient Center Department of Radiation Oncology!

We are eagerly anticipating the completion of construction and acceptance testing/commissioning of our new Varian Edge<sup>®</sup> linear accelerator. This will become our new primary stereotactic radiosurgery/stereotactic body radiotherapy machine, and will complement our Truebeam. We are hoping to treat our first patients in March 2016.

In October 2015, we transitioned from a weekly retrospective peer review program ("chart rounds") to a prospective daily contouring and planning rounds. When possible, for each patient, we review the physician delineated volumes, anticipated dose/fractionation, and normal tissue dose constraints prior to treatment planning, or at least prior to the start of treatment. Our goal in making this transition is to maximize the impact of peer review, and to maximize the educational opportunities for our residents. We have had positive feedback from our physicians, residents, and support staff so far and hope to refine our process as we move forward!

In November 2015, we completed integration of our two electronic medical records: ARIA® and EPIC®. As a result of the integration, patients' radiation oncologyspecific documentation and encounters (i.e. CT simulation, daily treatments, and planning documents) are available to the rest of the patients' care team in EPIC. Our hope is that this will improve patient safety and create clear communication with the other members of our multidisciplinary group.

For more information on about the Radiation Oncology Department at Loyola Outpatient Center, please contact Dr. Solanki at Abhishek.Solanki@lumc.edu or call 708-216-2729.

#### Edward Hines, Jr. VA Hospital

The Department continues to provide Radiation Oncology services at Edward Hines, Jr. VA Hospital. The Hines VA department of radiation oncology is a critical component of our Loyola clinical, educational, and research missions. Veterans from both Hines VA Hospital and Jesse Brown VA Medical Center who need radiation therapy receive care under the direction of our Loyola faculty physicians. In addition, precise radiation delivery is ensured by our expert staff in medical physics, dosimetry, and radiation therapists. On average, our Department treats well over 600 patients per year, encompassing all disease sites.

To ensure high quality care, the Hines VA Radiation Oncology department was re-accredited by the American College of Radiology in 2014. This accreditation process includes an external audit of the department ensuring that the highest standards of care are followed. Both the radiation oncology department at Hines VA Hospital as well as Loyola are two of the few institutions within the state of Illinois to receive this accreditation. In addition, our physicians participate in regular cancer committee meetings and tumor boards and the oncology program is accredited by the American College of Surgeons.

Recently, Hines VA Hospital was chosen to participate in the VALOR trial comparing SBRT vs. thoracotomy for NSCLC. This is a major accomplishment. The trial could result in a very significant paradigm shift in lung cancer management. Being invited to participate in this study is an honor since only five sites nationwide have been selected.

There are a number of new programs being developed at Hines VA Hospital. Among these is a program to provide stereotactic radiosurgery (SRS) in the relatively near future. To implement this program, a new linac has been purchased by the VA health system. This linac will replace one of the existing treatment units. Installation of the unit is expected in fiscal year 2017.

The GU malignancies service is quite busy at Hines VA Radiation Oncology and offers image-guided, intensitymodulated radiation therapy. Our GU colleagues are actively involved in our program through the implantation of gold fiducial markers to better target the area of interest. Various means of further improving the already strong clinical service are being considered including hypofractionation, hydrogel spacers to physically maximize distance between the prostate and rectum with the aim of further reducing toxicity. A great deal of clinical research activity stems from our involvement with the Hines VA Radiation Oncology program.

For more information on the Radiation Oncology Department at the Edward Hines, Jr. VA Hospital, please contact Dr. Welsh at James.Welsh@lumc.edu or call 708-202-7091.

### Physics update

The Physics Section within the Department of Radiation Oncology has been busy pursuing the newest technologies to provide state-of-the-art care to our patients. In January, installation of the Varian "Edge" linear accelerator was initiated in one of our newly remodeled linac vaults. As an early adopter, Loyola will be the first institution in the Chicagoland area, and in the Midwest, to offer the Edge. A dedicated stereotactic treatment unit, the Edge will include optical image guidance, as well as the Calypso beacon system.

The Calypso system, also known as "GPS" for the body, will enable physicians to track certain tumors in real-time ensuring that the therapeutic dose is accurately delivered to the tumor, while sparing surrounding normal tissues. Combining these technologies will allow for the expansion of our stereotactic radiosurgery (SRS) and stereotactic body radiotherapy (SBRT) programs.

Another addition to the Department is the Siemens AS 64 CT simulator. With installation expected by June 2016, the new CT simulator is the first 64 slice CT simulator to be installed in the region. Noteworthy, the system will provide an advanced iterative reconstruction algorithm that will significantly decrease metal artifacts arising from dental work and hip prostheses, as well as reduce patient imaging doses. This combination of equipment will enable our Department to maintain a technological advantage, as well as provide numerous research opportunities as we integrate these modalities into the clinic.

For more information on Radiation Physics at Loyola, please contact Dr. Roeske at JRoeske@lumc.edu or call 708-216-2596.



### Radiobiology Update

This year's radiobiology course for our residents will be taught by a team of experts, including **Dr. Gayle Woloschak**, **Dr. Eun-Kyoung Breuer**, **Dr. Welsh**, and **Dr. Harkenrider**.

**Dr. Breuer** and **Dr. Small** recently received a donation for their project on "The role of TACC3 in the transition of ductal carcinoma in situ (DCIS) to invasive breast cancer." **Dr. Breuer** continues to teach the Signal Transduction Course for the Loyola University Chicago Graduate School Program.

For more information about Radiobiology at Loyola, please contact Dr. Breuer at EuBreuer@lumc.edu or call 708-327-2160.

## Our Training Programs

#### Medical Residency

The past year has exemplified the Department of Radiation Oncology's continued commitment to and performance in delivering excellent health care and developing outstanding radiation oncologists. We are providing the residents with an abundance of clinical cases not found in most residency programs, such as intraoperative radiotherapy, proton therapy, hyperthermia, and a full spectrum of brachytherapy procedures.

We will be starting a chief resident rotation at Edward Hines VA Hospital to provide increasing independence for our graduating residents.

Our residents have been very busy clinically and academically and it shows with their productively. Our chief resident, Dr. Fiori Alite, continues his exciting work on lung SBRT to not only improve local control but also to learn more and hopefully decrease toxicity. Dr. Maya Mathew was awarded the Holman Pathway allowing her 18 months of dedicated basic science research during her residency. She will be investigating the FRK-RAK gene and its correlation with radiation sensitivity in triple negative breast cancer. Dr. Block continues investigation into the role of dual energy imaging and the potential for lung tumor tracking. His most recent project entitled "Dual Energy Fluoroscopy for Markerless Motion Tracking of Lung Tumors in Stereotactic Body Radiation Therapy (SBRT)" was awarded the Resident Clinical/Basic Science Research Award and was an oral presentation at the Best in Physics section at 2015 ASTRO. Dr. Block also won the 2016 Steven M. Pinsky Resident Poster Award in radiation oncology at the Chicago Radiological Society Resident Scientific Poster Session.

Our residents have been very active with organized medicine service within ASTRO, ACR, Chicago Radiological Society, and other service at Stritch School of Medicine, Loyola University Chicago.

In July, we are very excited to have two incoming residents joining our program from the 2015 match. We were very pleased to match **Dr. Chelsea Miller** from the University of Cincinnati and **Dr. Basel Altoos** from the University of Colorado. We eagerly await the upcoming 2016 residency match to learn which future radiation oncologists will be joining our program. We had an excellent interview season with many superb candidates rotating in our department. For more information about the Radiation Oncology Medical Residency at Loyola, please contact Program Coordinator Joseph Plovich at JPlovich@lumc.edu or call 708-216-2587.

#### **Physics Residency**

In July 2015, the Physics Section initiated a Medical Physics Residency training program within the department. The physics residency is a two year training program based on the Guidelines for Accreditation of Medical Physics Residency Programs as published by the Commission on Accreditation of Medical Physics Education Program (CAMPEP). Teaching is provided through didactic lectures, clinics and teaching conferences, with emphasis on patient care, under the supervision of full-time staff (8 radiation oncologists, 8 medical physicists, 7 dosimetrists). **Dr. Sethi** serves as the Residency Director, and the Residency Committee is composed of medical physicists **Bonnie Chinsky, MS, Abbie Diak, PhD**, and **Sebastien Gros, PhD**.

The objective of the residency program is to provide training in radiation oncology physics in a structured clinical environment for individuals wishing to practice professional radiation oncology physics. Medical Physics Residents will have either a CAMPEP-accredited PhD or MS degree in Medical Physics or a doctoral degree in a related field (e.g. physics, engineering) with additional medical physics coursework.

Our first resident is **Dr. Rakesh Patel**, who received his degree in Medical Physics from the University of Massachusetts, Lowell. Prior to joining the physics residency, Rakesh was a post-doctoral fellow at Loyola working on the dual energy imaging project. We are excited to offer this new educational program, and look forward to growing the residency over the next several years.

For more information about Radiation Oncology Physics Residency at Loyola, please contact Program Director Dr. Sethi at ASethi@lumc.edu or call 708-216-2595.

#### Medical Student Rotations

This academic year, we have had 2 Loyola University rotating students and 7 outside medical school rotating students rotate in our department so far.

For more information about Medical Student radiation oncology rotations at Loyola, please contact Dr. Thomas at TaThomas@lumc.edu or call 708-216-2587.

### Social



Dr. Small gives a speech (left) and our radiation therapists sing "12 days of Treatment" (right) at the Radiation Oncology Department Holiday Party, December 19, 2015, aboard Navy Pier's Odyssey.



#### **Birth Announcements**



Congratulations, Bret Conrad, CMD and family. Brysen Thomas Conrad was born on Feb. 5, 2016 at 7lb 13oz, 19in.



Congratulations to Courtney Perino and family. Brenna Olivia Perino was born on Oct. 14, 2015.

Congratulations to **Dr. Mathew** and family on the birth of baby girl, Seraph, born on Thursday, January 21st. Both mother and daugher are doing fine.

### Our Donors

The Loyola University Radiation Oncology Department gratefully acknowledges the generosity of our donors. Thank you for your support.

#### Donors in 2015

Eric Kielhorn, MD Janet Kittlaus Simon Lo, MD M. Parvez Shaikh, MD Karan Shah, MD Tellabs Caroline Palmer

Philanthropic support is needed to further the Radiation Oncology Department's mission. If you wish to submit a donation to the Radiation Oncology Department, please contact Jaimie Scherer at Jaimie.Scherer@luhs.org or call 708-216-5197.

## Our Staff Radiation Oncologists



#### William Small, Jr. MD, FACRO,FACR,FASTRO

Professor

Chairman of Radiation Oncology

Specialties: Gynecologic cancer, Gastrointestinal cancer, Breast cancer

#### Bahman Emami, MD, FACR, FASTRO

Professor

Specialties: Head and neck cancer, Lung cancer, Hematologic malignancies





#### Mehee Choi, MD

Assistant Professor

Specialties: Head and neck cancer, Breast cancer

#### Matthew Harkenrider, MD

Assistant Professor, Program Director, Director of Brachytherapy

Specialties: Gynecologic cancer, Lung cancer, Genitourinary cancer





#### Edward Melian, MD

Associate Professor

Specialties: Central nervous system cancer, Pediatric cancer, Sarcoma

#### Abhishek Solanki, MD

Assistant Professor, Loyola Outpatient Center Radiation Oncology Medical Director

> Specialties: Genitourinary cancer, Central nervous system cancer, Hematologic malignancies





#### Tarita Thomas, MD, PhD, MBA

Assistant Professor

Specialties: Gastrointestinal cancer, Breast cancer

> James Welsh, MD, MS, FACRO

Professor, Hines VA Radiation Oncology Medical Director

Specialties: Proton beam radiotherapy



## **Clinical Trials**

Loyola University Radiation Oncology is currently participating in the following clinical trials:

#### **BRAIN/CNS**

RTOG 1071/NCCTGN0577 – Phase III Intergroup Study of Radiotherapy versus Temozolomide Alone versus Radiotherapy Concomitant with Adjuvant Temozolomide for Patients with 1p/19q Codeleted Anaplastic Glioma.

*Clinical Trials.gov Identifier:* NCT00869401

NRG CC001 - A Randomized Phase III Trial of Memantine and Whole-Brain Radiotherapy With Or Without Hippocampal Avoidance In Patients With Brain Metastases.

Clinical Trials.gov Identifier: NCT02360215

#### BREAST

TARGIT US - Targeted Intraoperative Radiotherapy After Conservation Breast Surgery For Women With Early Stage Breast Cancer: A Phase IV Registry Trial.

### *Clinical Trials.gov Identifier: NCT01570998*

RTOG 1304/NSABP B51 - A Randomized Phase III Clinical Trial Evaluating Post-Mastectomy Chestwall and Regional Nodal XRT and Post- Lumpectomy Regional Nodal XRT in patients with Positive Axillary Nodes Before Neoadjuvant Chemotherapy Who Convert to Pathologically Negative Axillary Nodes After Neoadjuvant Chemotherapy.

*Clinical Trials.gov Identifier:* NCT01872975

#### HEAD AND NECK

RTOG 0920 - A Phase III Study Of Postoperative Radiation Therapy (IMRT) +/- Cetuximab For Locally-Advanced Resected Head And Neck Cancer

Clinical Trials.gov Identifier: NCT00956007

#### LUNG

IIT - SBRT for Early NSCLC - Phase II Study of Stereotactic Body Radiation Therapy for Unbiopsied Early-stage Non-small Cell Lung Cancer.

Clinical Trials.gov Identifier: Pending

#### GASTROINTESTINAL

RTOG 0848 - A Phase II-R and A Phase III Trial Evaluating both \*Erlotinib (PH IIR) and Chemoradiation (PH III) as Adjuvant Treatment for Patients with Resected Head of Pancreas Adenocarcinoma."

Clinical Trials.gov Identifier: NCT01013649

PanCRS – Pancreatic Cancer Radiotherapy Study Group (PanCRS) Trial: A Randomized Phase III Study Evaluating Modified FOLFIRINOX (mFFX) with or without Stereotactic Body Radiotherapy (SBRT) in the Treatment of Locally Advanced Pancreatic Cancer.

*Clinical Trials.gov Identifier: NCT01926197* 

RTOG 1112 - Randomized Phase III Study of Sorafenib Versus Sterotactic Body Radiation Therapy Followed By Sorafenib In Hepatocellular Carcinoma.

#### Clinical Trials.gov Identifier: NCT01730937

IIT - IORT Pancreas- Phase I Study of Low Kilovoltage Intraoperative Radiation for Patients with Resectable Pancreatic Adenocarcinoma.

#### Clinical Trials.gov Identifier: NCT02599662

TACE - A Pilot Randomized Trial of Transarterial Chemoembolization With or Without Stereotactic Body Radiation Therapy For Hepatocellular Carcinoma Patients Awaiting Liver Transplantation.

*Clinical Trials.gov Identifier:* NCT02150317

#### GENITOURINARY

RTOG 0815 - A phase III prospective randomized trial of dose-escalated radiotherapy with or without shortterm androgen deprivation therapy for patients with intermediate-risk prostate cancer.

#### Clinical Trials.gov Identifier: NCT00936390

NRG GU001 - Randomized Phase II Trial of Postoperative Adjuvant IMRT Following Cystectomy For pT3/pT4 Urothelial Bladder Cancer.

Clinical Trials.gov Identifier: NCT12316548 IIT - HDR Brachytherapy Prostate - A prospective database of high-dose-rate prostate brachytherapy.

ate-risk prostate cancer.

Clinical Trials.gov Identifier: Pending

#### GYNECOLOGIC

RTOG 1174 - A Phase III Trial Of Adjuvant Chemotherapy As Primary Treatment For Locally Advanced Cervical Cancer Compared To Chemoradiation Alone: The Outback Trial.

### *Clinical Trials.gov Identifier: NCT01414608*

IIT - MRI Based Brachytherapy for Cancer of the Cervix - A Prospective Trial of MRI-Based Brachytherapy for the Treatment of Carcinoma of the Cervix.

Clinical Trials.gov Identifier: Pending GOG 0238 - A Randomized Trial of Pelvic Irradiation With or Without Concurrent Weekly Cisplatin in Patients With Pelvic-Only Recurrence of Carcinoma of the Uterine Corpus.

Clinical Trials.gov Identifier: NCT00492778

#### METASTATIC DISEASE

KYPHO IORT - Combining Intraoperative Radiotherapy with Kyphoplasty for Treatment of Spinal Metastases.

Clinical Trials.gov Identifier: NCT02480036

RTOG 0631 – Phase II/III Study of Image-Guided Radiosurgery/SBRT for Localized Spine Metastasis.

*Clinical Trials.gov Identifier:* NCT00922974

NRG BR001 - A Phase I Study of Stereotactic Body Radiotherapy (SBRT) for the Treatment of Multiple Metastases

### *Clinical Trials.gov Identifier:* NCT02206334

NRG BR002 - A Phase IIR/III Trial of Standard of Care Therapy with or without Stereotactic Body Radiotherapy (SBRT) and/ or Surgical Ablation for Newly Oligometastic Breast Cancer.

Clinical Trials.gov Identifier: NCT02364557

For more information about Clinical Trials at Loyola, please contact Beth Chiappetta, RN at BChiappetta@lumc. edu or call 708-216-2568.

### Faculty Publications (October 2015-present)

Albuquerque K, Patel M, Liotta M, Harkenrider M, Guo R, Small W Jr, Ronald P. Long-term Benefit of Tumor Volume-Directed Involved Field Radiation Therapy in the Management of Recurrent Ovarian Cancer. Int J Gynecol Cancer. 2016 Jan 29. [Epub ahead of print] PMID: 26825832.

Ben-Josef E, George A, Regine WF, Abrams R, Morgan M, Thomas D, Schaefer PL, DiPetrillo TA, Fromm M, Small W Jr, Narayan S, Winter K, Griffith KA, Guha C, Williams TM. Glycogen Synthase Kinase 3 Beta Predicts Survival in Resected Adenocarcinoma of the Pancreas. Clin Cancer Res. 2015 Dec 15;21(24):5612-8. doi: 10.1158/1078-0432.CCR-15-0789. Epub 2015 Aug 3. PMID: 26240274.

Block AM, Small W, Jr. Combined modality therapy in the adjuvant treatment of uterine serous carcinoma. J Gynecol Oncol. 2016 Mar;27(2):e13. PMID: 26768779.

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