2018 CALL FOR ABSTRACTS

64th Annual International Meeting
BRINGING SCIENCE TO THE CITY THAT WORKS
Historic Hilton Chicago

September 23-26, 2018
The 64th Annual Meeting of the Radiation Research Society will be held at the Historic Hilton Chicago Hotel on September 23-26, 2018. The full day SIT Workshop will be held Saturday, September 22, 2018.

Members of the Program Committee have assembled an outstanding scientific program with exciting plenary speakers, stimulating 8AM topical review sessions, and two presidential symposiums that include speakers with research programs that use state-of-the-art techniques to make important advances in radiation research. Approximately 50% of the speakers for the oral sessions will come from top scoring abstracts. Therefore, I encourage you and your colleagues to submit an abstract of your most exciting science so that you can further enhance the quality of what promises to be an outstanding scientific program. Continuing this year will be the inclusion of CME credits for selected scientific sessions.

The hotel is fabulous, the program is world class, and Chicago is an easily accessible, fun destination. I look forward to seeing you at the upcoming annual meeting for an extraordinary meeting!

See you in Chicago,

David Kirsch, MD, PhD
Chair, RRS 2018 Program Committee

We are pleased to have the following plenary speakers in our 2018 program:

Tyler Jacks, PhD  Cristian Tomasetti, PhD  Sandra Demaria, MD  Harald Paganetti, PhD
Confirmed Speakers for the 2018 Annual Meeting

Plenary
Sandra Demaria, MD  
Radiation and immunotherapy
Tyler Jacks, PhD  
Modeling cancer in the mouse
Harald Paganetti, PhD  
Proton radiation therapy
Cristian Tomasetti, PhD  
Variations in cancer risk

Presidential Symposium 1: Future radiobiology for advanced radiotherapies
Michael Baumann, MD  
Determining and targeting radioresistance
Soren Bentzen, MSc, PhD, DMSc  
Precision radiation medicine: spatio-temporal tailoring of radiotherapy to patients
Marco Durante, PhD  
Future ion beam radiobiology
Dorthe Schaue, MRes, PhD  
Future radiobiology for leveraging the immune response

Presidential Symposium 2: p53 in radiation response and tumor suppression
Laura Attardi, PhD  
Deconstructing p53 pathways in tumor suppression
Allan Balmain, PhD, FRS  
Impact of environmental agents on mutation signatures in tumor genomes
Andrei Gudkov, PhD, DSci  
Paradoxes and puzzles of DNA damage response in vivo
Michael Kastan, MD, PhD  
p53 and DNA damage—has it really been over 25 years?

Topical Reviews
Christopher Bakkenist, PhD  
DNA damage signaling to immune checkpoints
Marjan Boerma, PhD  
Recent clinical and experimental insight into radiation-induced heart disease
David Brenner, PhD  
Cancer risk among survivors of the atomic bomb and exposure for medical imaging
Timothy Chan, MD, PhD  
The evolving landscape of immunotherapy biomarkers
Polly Chang, PhD  
Noncarcinogenic effects of space radiation
Joseph Deasy, PhD  
Information-driven radiotherapy: integrating data with radiobiology to understand outcomes
James DeGregori, PhD  
Radiation carcinogenesis through alterations in adaptive landscapes
Scott Floyd, MD, PhD  
Chromatin dynamics: the landscape for response to DNA damage
Scott Floyd, MD, PhD  
The rationale, physics and radiobiology of carbon ion radiation therapy
Piero Fossati, PhD  
Computational biophysics: tools and challenges in radiation biophysics
Gianluca Lattanzi, PhD  
Transitioning to scientific independence
James Lederer, PhD  
Transitioning to scientific independence
Walter Tinganeli, PhD  
Nanoparticles for cancer imaging and therapy
Gayle Woloschak, PhD  
Characterization of radiation resistance in tumors
Claudia Wiese, PhD  
Transitioning to scientific independence
David Yu, MD PhD  
Biology didactics for radiation oncology residents: past, present, and future
Elaine Zeman, PhD  
The associations between the cancer genome and ionizing radiation

Symposium
Mohamed Abazeed, MD, PhD  
Exploiting oncometabolites for selective tumor radiosensitization
Rebecca Abergel, PhD  
The history of Michael Fry and the Radiation Research Society
Ranjit Bindra, MD, PhD  
Michael Fry and radiation epidemiology: of mice and men
Eleanor Blakely, PhD  
Niche—derived mitigation of acute radiation sickness
John Boice, PhD  
Associating DNA repair deficiency to radiation-induced cancer and genetic factors of mice/men
Marta Bueno, PhD  
Clinical outcomes for patients treated with proton radiation therapy
John Chute, MD  
Analysis of circulating tumor DNA for detection of molecular residual disease after radiotherapy
Sylvain Costes, PhD  
Thomas Delaney, MD  
Max Diehn, MD, PhD  
Sylvain Costes, PhD  

Bringing Science to The City That Works
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Piero Fossati
Clinical outcomes following carbon ion radiotherapy

Don Fox, MD
Acentric DNA segregation during mitosis promotes radiation resistance

Thomas Helleday, PhD
Targeting DNA repair to improve radiotherapy

Maria Jasinska, PhD
Protecting the genome by homologous recombination

Tadashi Kamada, MD, PhD
PSMA-targeted radiopharmaceutical therapy for prostate cancer

Ana Ponce Kiess, MD, PhD
Identifying metabolic dependencies in pancreatic cancer

Alec Kimmelman, MD, PhD
Impact of intestinal and cervical microbiome on radiation response in cervical cancer

Ann Klopp, MD, PhD
ROS metabolism in the ER as a novel cancer target

Marianne Koritzinsky, PhD
Targeting the UPR and ISR to improve response to radiotherapy

Constantinos Koumenis, PhD
Mentorship, basic science and radiation protection: lessons from the Drs. Fry

Quynh Thu Le, PhD
Impact of intestinal and cervical microbiome on radiation response in cervical cancer

Isabelle Lombaert, PhD
Radiation effects on salivary gland epithelial stem/progenitors

David Mankoff, MD, PhD
Cancer imaging biomarkers to guide targeted cancer therapy

Peter Maxim, PhD, MSc
FLASH radiation therapy—path to increase the therapeutic ratio?

Andy Minn, MD, PhD
Molecular determinants of response and resistance to radiation and immune checkpoint blockade

Meredith Morgan, PhD
The combination of DNA damage response inhibitors with radiation

Kent Mouw, MD, PhD
Genomic analysis of tumor response to DNA damaging therapies

Mark Oldham, PhD
Dosimetry for advanced small animal radiation therapy: what's achievable?

Christie Orschell, PhD
Mitigation of the hematopoietic acute radiation syndrome using murine models

Tej Pandita, PhD
Post-translational chromatin modifications: the therapeutic potential

Katia Parodi, PhD
Small animal image-guided proton irradiation: the SIRMIO project

Brian Pogue, PhD, MSc
Cherenkov and scintillation imaging in radiotherapy for quantitative dosimetry and molecular sensing

Brendan Price, PhD
Reorganizing chromatin during DSB repair

Elizabeth Repasky, PhD
Adrenergic stress and the SNS regular anti-tumor immunity and the sensitivity of tumors to ionizing radiation

Javier Torres-Roca, MD
A framework for genomic precision radiation therapy

Barry Rosenstiel, MD, PhD
Radiogenomics: Identification of genomic biomarkers predictive of outcomes following exposure to radiation

Kristopher Sarosiek, PhD
Radiation-induced apoptosis in healthy tissues and cancers

Jan Schuemann, PhD
TOPAS-nBio - a platform combining track structure Monte Carlo simulations with biological effect modeling

Julie Schwarz, MD, PhD
Clinical and preclinical evidence supporting metabolic therapy in cervical cancer

Navita Somaiah, MSSB, MD
Optimising radiotherapy fractionation - from clinical trials to molecular mechanisms

Cullen Taniguchi, MD, PhD
Normal tissue radioprotectors to enable ablative radiation in the abdomen

Phuoc Tran, MD, PhD
Radiation biology studies with a small animal irradiator

Robert Ullrich, PhD
Molecular carcinogenesis studies with mouse models

Marie Catherine Vozenin, PhD
Flash-Rt preserves normal tissue and enhances differential response: from preclinical experiments to clinical applications

Andrew Wang, PhD
Circulating tumor cells as a biomarker for radiation treatment response and tumor surveillance

Mike Weil, PhD
Approaches to understanding space radiation cancer risks

James W. Welsh, MD
Clinical outcomes of immunotherapy plus XRT for NSCLC and SCLC

Ding Xue, PhD
Mechanisms of radiation-induced bystander effects

Kristina Young, MD, PhD
Translational radiation and immunotherapy clinical trials

Jian Yu, PhD
Protection against radiation-induced intestinal injury, a matter of p53

Daohong Zhou, PhD
Senescent cells are new targets for cancer and radiation-induced late effects
RRS 2018 Call for Scientific Abstracts

Abstract Submission

Approximately 50% of oral session speaking slots will be selected from top scoring abstracts. All abstracts must be submitted online using the Oasis submission site. Directions will be sent via email or visit the RRS home page (www.radres.org) for details. To avoid delays, prepare your abstract offline and save it as a text, Word, or WordPerfect (.txt., .doc, or .wpd) file before starting. The abstract size is limited to 2,000 characters (not including spaces). Be sure your abstract is accurate before you complete the submission and retain the control number you receive upon completion.

New Process For 2018:

- For your convenience, you will be able to submit your abstract without the added step of obtaining an RRS Member to act as your sponsor
- During the process, you will be asked if you are submitting to “Poster Session Only” or if you would like to be considered for an “Oral Presentation” spot. You will have the opportunity to select the category that is most relevant to your work. If you have submitted an abstract to be considered for “Oral Presentation”, please do not submit a duplicate abstract to the “Poster Only” category. Please be assured that your abstract will still be considered for a poster even if you are not selected for an oral presentation at the 2018 Annual Meeting.

Reminders:
- Your membership must be up to date for 2018
- Only one poster will be allowed to be presented per poster category
- The presenting author must be registered for the meeting by July 20, 2018

Important Dates

March 8, 2018
Submission Site Opens
(Scientific, SIT, ECI)

March 8, 2018
Registration Opens

April 23, 2018
Submission Site Closes
(Scientific, SIT, ECI)

May 22, 2018
Travel Award Notification

July 20, 2018
Deadline for Poster Presenters to Register for Meeting

Registration & Hotel

The RRS 2018 Annual Meeting will be held at the Historic Hilton Chicago in Chicago, Illinois. All presenters at the RRS 2018 meeting are expected to register for the meeting. Meeting registration and hotel reservations will be accepted online starting in early-March. All hotel reservations must be made through the RadRes meeting registration site: www.radres.org/Chicago2018. Do not call the hotel directly.
ORAL SUBMISSION CATEGORIES
Top scoring abstracts will be selected for the following planned oral sessions within topics ranging from mechanisms and modulators of cell, normal tissue and tumor effects of radiation, radiation physics and chemistry to clinical trials of radiation therapy:

Radiation-Induced GI Syndrome
Radiation Dosimetry: In Patients and Phantoms
Mechanisms of Cell Death after Radiation
Hypofractionation: From Pre-clinical Models to Clinical Trials
Genomics of Normal Tissue Toxicity and Tumor Response to Radiation
Hypoxia and ER Stress
Imaging and Circulating Biomarkers of Radiation Response
Radionuclides for Imaging, Therapy, and Dosimetry
Chromatin Biology and Radiation Response
Space Radiation and Cancer Risk (Joint Session, CRH)
Pre-clinical Mechanisms of Radiation and Immunotherapy
Dose Rate and Radiation Toxicity
Reactive Oxygen Species, Redox and Metabolism
Track Structure and Monte Carlo Modeling of Biological Effects
Radiation Biology of Model Organisms: Flies, Worms, and Fish
DNA Damage Response and DNA Repair
Clinical Trials of Radiation Therapy and Immunotherapy (ASTRO Co-Sponsor)
Radiomics, Radiogenomics, and Artificial Intelligence
Medical Countermeasures of Radiation (Mitigators)
Stem Cells and Radiation Toxicity
Microbiome and Radiation Response: Pre-Clinical Studies to Clinical Trials
RadiationModifiers (Protectors and Sensitizers)
Proton and Carbon Ion Radiotherapy
Small Animal Irradiation

**Poster Size for 2018**
4’ (width) x 4’ (height)
(48” x 48” / 1.21m x 1.21m)

PROGRAM AND ABSTRACTS
The Program Book will be distributed on-site to meeting registrants and an Abstract PDF will be emailed to registered attendees approximately 2-weeks prior to the meeting. In addition, content will be available via the meeting website and mobile app for the 2018 conference.
SIT TRAVEL AWARD APPLICATION

Applications for the SIT Travel Awards shall be completed online at the time the abstract is submitted. Both the applicant’s faculty sponsor and the institution’s department chair must make an affirmation when applying online. To avoid any delays in submission, prepare a brief resume (2-page limit) offline and save it as a text, Word, or WordPerfect (.txt, .doc, or .wpd) file before starting your online application. The resume should describe your:

1. Educational background (include degree & dates – MM/YY)
2. Honors and relevant experience
3. Description of current training program and objectives, including a description of how the program relates to the radiation sciences
4. List of relevant publications

SIT TRAVEL AWARD CRITERIA

RRS shall provide travel awards of up to $800 (depending on the availability of funds), which is inclusive and designed to offset travel and registration fees, and additional amounts for Merit Awards to encourage the participation of SITs at the meeting and to recognize the quality of their scientific submissions. Your travel award will be available to you onsite at the annual meeting during the designated pick-up hours (posted at the meeting). Selection of SIT Travel Award recipients shall be based upon an evaluation of their abstracts and travel award application. The criteria for consideration are:

1. A person may apply for a SIT Travel Award, regardless of current degree, as long as he/she is working toward a higher degree (e.g. PhD, MD, and DVM) or is in a post-graduate training program (post-doctoral, research associate etc.)
2. The online application must be completed and affirmed by both the faculty sponsor and the institution’s department chair.
3. The applicant must submit an abstract via online submission by the April 23, 2018 deadline.
4. Each applicant must be an RRS member or have a membership application pending.
5. The SIT applicant may be awarded travel support for only 3 (calendar) years and no more.

SIT WORKSHOP

The RRS is pleased to announce, for the ninth year, a special one-day education workshop for Scholars-in-Training (SIT) members will be held on Saturday, September 22, 2018, which is one day prior to the start of the RRS Meeting. The aim of the radiobiology education workshop is to provide young scientists, post-doctoral fellows, and graduate students with a fundamental knowledge of radiobiological principles and an in-depth understanding of current issues in the field of translational research. This program has been established through generous grants from the National Institute of Allergy and Infectious Diseases (NIAID) and the National Aeronautics and Space Administration (NASA). SIT members accepted for this workshop will therefore be able to attend at little extra cost.

Important Dates

- March 8, 2018: Submission Site Opens (Scientific, SIT, ECI)
- April 23, 2018: Travel Award Application Deadline
- May 22, 2018: Travel Award Notification
- June 11, 2018: Deadline to Accept/Decline Travel Award
- July 20, 2018: Deadline for Poster Presenters to Register for Meeting
Early Career Investigator (ECI)

ECI TRAVEL AWARD APPLICATION

The RRS-ECI Committee will be offering travel awards to top scoring abstracts. You must be a Full or Sponsored Faculty Member of RRS, in good standing, to apply for an award. If you are not currently a Full or Sponsored Faculty member of RRS, please contact audrey@radres.org for assistance or join online at radres.org. To avoid any delays in submission, you must be a Full or Sponsored Faculty Member of RRS (not SIT or Associate), prepare a brief resume (2 page limit) offline and save it as a Word or Word Perfect (.txt, .doc, or .wpd) file before starting your online application. You should be prepared to address the following questions:

• Year you obtained your highest degree.
• Do you have an independent lab?
• When you started your own lab/group (independent of post-doc mentor).
• Identify independent funding intramural and extramural.
• Do you have staff that report to you? If so how many members in your group?
• Briefly, include your main areas of research.
• Please provide name and contact information for reference.

ECI TRAVEL AWARD CRITERIA

RRS shall provide travel awards of up to $800 (depending on availability of funds), which is inclusive and designed to offset travel and registration fees. Your travel award will be available to you onsite at the annual meeting during designated pick-up hours (posted at the meeting). ECIs are also granted the opportunity, if selected, to speak or chair at the annual meeting.

Selection of ECI Travel Award recipients shall be based on an evaluation of their funding needs as identified in your application and quality of your abstract. The criteria for consideration are:

• Applicant must be a full RRS Member in good standing or have membership pending.
• ECI application must be completed and approved by the ECI Committee Leader.
• The ECI applicant must submit an abstract via online submission by April 23, 2018.

Further educational and career events are available to ECIs throughout the meeting.
Continuing Education Credits

ACCREDITATION STATEMENT AND INFORMATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Medical Education (ACCME) through the joint relationship of the AMEDCO and the Radiation Research Society (RRS). AMEDCO is accredited by the ACCME to provide continuing medical education for physicians.

Faculty Disclosure:
In accordance with the ACCME guidelines, RRS requires all faculty speakers to disclose all commercial relationships relative to the content of this CME activity. Individual faculty disclosure will be provided in the course syllabus for the General Session. All presentations will be peer reviewed for fair balance and evidence based medicine.

CEU FOR SIT MEMBERS

If you are a SIT Member attending the SIT Workshop and/or the RRS Annual Meeting, we are once again happy to report that the American Academy of Health Physics (AAHP) will be assigning continuing education credits for both activities. The specific amount of credits and the ID numbers will be available in the coming months. If this is something that would be beneficial to you and you would like additional information, please contact Audrey Rinehart, audrey@radres.org.