2019 CALL FOR ABSTRACTS

65th Annual International Meeting
Westin Gaslamp

November 3-6, 2019
The 65th Annual Meeting of the Radiation Research Society will be held at the Westin Gaslamp Hotel in San Diego, CA on November 3-6, 2019. The full day SIT Workshop will be held Saturday, November 2, 2019.

Members of the Program Committee have assembled an outstanding scientific program highlighting the state-of-the-art in radiation sciences. Continuing this year will be the inclusion of CME credits for selected scientific sessions and coordinating efforts with a local charity as part of the RRS Gives Back campaign.

The hotel is fabulous, the program is world class and San Diego is an easily accessible, international destination; please refer to the travel tips included in the brochure for more information. We hope you bring your family along to explore this amazing destination!

Don't forget to share your excitement and connect with other attendees using #RadRes2019 on all social media channels!

See you in San Diego,

Susan Bailey, PhD
Chair, RRS 2019 Program Committee

We are pleased to have the following plenary speakers in our 2019 program:

Celeste Simon, PhD  Charles Gersbach, PhD  Kjell Lindgren, MD  Timothy Chan, MD, PhD  Joann Sweasy, PhD
Confirmed Speakers for the 2019 Annual Meeting

Plenary
Timothy Chan, MD, PhD  
Immunotherapy
Charles Gersbach, PhD  
Genome Editing
Celeste Simon, PhD  
Joann Sweasy, PhD

Presidential Symposium: Gender and the genome
Marjan Boerma, PhD  
IR and the heart
Isabelle Jackson, PhD  
IR and the lungs
Karen Krukowski, PhD  
IR and the brain
Brinda Rana, PhD  
Response to spaceflight

Topical Reviews
Eleanor Blakely, PhD  
Hadron therapy
Kristin Fabre, PhD, MS  
TRISH/Radiation countermeasures program - space
Eric Grant, PhD  
Methods in epidemiology
Lawrence Heilbronn, PhD, MS  
Neutrons
Randall Hyer, MD, PhD  
Radiation risk communication to the public
Xun Jia, PhD  
Artificial intelligence and radiation therapy
Ann Klopp, MD  
Radiation therapy and the microbiome
Philippe Lambin, PhD  
Radiation therapy and the immune system
Carmel Mothersill, PhD  
Environmental radiobiology
Tannishtha Reya, PhD  
Stem cell and cancer stem cells
Jeremy Stark, PhD  
DNA repair pathway choice
Chang W. Song, PhD  
SBRT biology - tumor microenvironment?
Marie Catherine Vozenin, PhD  
FLASH radiation - how it works
Xun Jia, PhD  
Artificial intelligence & radiation therapy
Lydia Zablotska, PhD  
Radiation risks of occupational exposures: new findings and how they fit with risk projections from high dose rate studies
Shan Zha, MD, PhD  
ATM/ATR/DNA-PKcs overview
John Zimbrick, PhD  
Radiation chemistry: the basics

Symposium
Rebecca Abergel, PhD  
DNA damage signaling and immune response
Samuel Bakhoum, MD, PhD  
DNA origami and nanoparticles/DNA strand breaks; low energy electrons
Chris Bakkenist, PhD  
Is this all there is
Ilko Bald, PhD  
Single dose RT and SBRT: imaging the dose response
John Boice, PhD  
Joseph Caster, MD, PhD  
Anthony Chalmers, PhD  
Bruce Conklin, MD  
Michael Comforth, PhD  
Marka Crittenden, MD, PhD  
Lawrence Dauer, PhD  
Opportunities and challenges of combining SBRT and immunotherapy

Leukemia arises - or does it?
Max Diehn, MD, PhD
Marco Durante, PhD
Ashely Golden, PhD
Dudley Goodhead, PhD
Christian Graeff
Marc Greenberg, PhD
Nadia Haddy, PhD
Thomas Helleday, PhD
Andrew Hope, MD
George Iliakis, PhD, MS
Nadaparambil Jacob, PhD
Randall Kimple, MD, PhD
Ralf Kittler, PhD
Marianne Koritzinsky, PhD
Vidya Kumar, PhD
Sandrine Lacombe, MS, PhD
Evagelia Laiakis, PhD
Susan LaRue, DVM, PhD
Chang-Lung Lee, PhD
Stephen Lin, MD, PhD
Kjell Lindgren, MD
Billy Loo, MD, PhD
Siobhan MacArule
James Mitchell, PhD
Everett Moding, MD, PhD
Pierre Montay-Gruel, PhD
Mehran Mostafavi, PhD
John Murnane, PhD
Jean Nakamura, MD
Michael Nolan, DVM, PhD
Rebecca Oberley-Deegan, PhD
Anne Marie O’Boin-Lennon, MD, PhD
Mark Oldham, PhD
Peter O’Neill, PhD
Vincenzo Patera, PhD
Dale Preston, PhD
Nadeem Riaz, MD, MSc
Susanna Rosi, PhD
Katharina Schlacher, PhD
Julie Schwarz, MD, PhD
Marco Schwarz, PhD
Emanuele Scifoni, PhD
Michael Sevilla, PhD
Steve Simon, PhD
Patrick Sung, DPhil
Karla Thrall, PhD
Jenny Ting, PhD
Sergei Tomalchev, PhD
Wolfgang Tomé, PhD

Genetic predictors of radioresistance (KEAP1 and others)
Just a heartbeat away
On the physical track to clustered damage, complex DSB and more
Base specific radical cation and reactions
Stem cells and extracellular vesicles in normal tissue recovery
mRNA based radiation dosimetry
BBT-059 - mitigator of acute and delayed effects of radiation
Pt nanoparticles and DNA damage
Metabolomics - radiation signature based dosimetry
Theranostics
Radiation therapy and lymphopenia
Potentiation of hypoxic tumors
Telomeres and DNA repair
Radiosensitizers
Tracking the fate of clustered DNA damage and complex DSB in biological systems - a danger in hiding
Sex, lungs and Mars
DNA repair predictors of radiosensitivity
Rescue of cognitive function following fractionated brain irradiation in a novel preclinical glioma model
Damage transfer in DNA; LET effects on DNA damage
From Trinity Onwards: Technical and historical review of fallout and seminal events related to nuclear testing; summary of past studies on dose and risk with emphasis on long-term implications
Comparative outcome of TBI in rhesus macaque under different med management
From autopsies to synchrotrons to Mars – why the brain matters
Susan Wallace, PhD, MS  
Jing Wang, PhD  
John Ward, PhD  
Jamey Weichert, PhD  
Jeff Willey, PhD, MS  
George Xu, PhD  
Craig Yoder, PhD  

Complex DNA lesions: to repair or not repair, that is the question  
Mechanisms of clustered damage production  
The key to harmony is exceptional dosimetry
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.

Notes Regarding Submission Process:

• You are 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

• Please note: If your poster is not selected for the “Oral Presentation,” it will automatically be considered for the Poster Session and you will be notified.

• Reminders:
  Your membership must be up to date for 2019
  Only one poster will be allowed to be presented per poster category
  The presenting author must be registered for the meeting by August 30, 2019

Registration & Hotel

The RRS 2019 Annual Meeting will be held at the Westin Gaslamp in San Diego, California. All presenters at the RRS 2019 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; do not call the hotel directly. More information will be forthcoming and available through the RRS website: www.radres.org/2019Meeting.
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:

- Applied physics in translational radiobiology and medicine
- Biodosimetry for assessing radiation injury
- Canine translational radiation research (V Foundation Co-Sponsor)
- Clinical trials of radiosensitizers
- CNS effects of radiation
- DNA repair pathway choices
- FLASH and other high intensity radiation therapies
- From DNA damage to innate immunity
- Genome editing (ASTRO Co-Sponsor)
- Genomics of tumor response to radiation therapy
- Harnessing DNA repair for cancer treatment
- HPV associated cancers and radiation response
- Hypoxia and redox
- Imaging and circulating biomarkers of radiation response
- Medical countermeasures against radiation
- Normal tissue injury from radiation
- Pre-clinical mechanisms of immunotherapy and RT
- Radiation chemistry of DNA
- Radiation cytogenetics and cytogenomics
- Radiation dosimetry: in patients and phantoms
- Radiation protectors and sensitizers
- Radiation-induced cancers
- Radiomics and artificial intelligence in radiation therapy
- Radionuclides for imaging, therapy, and dosimetry
- Track structure and fast chemistry
- Tumor microenvironment: SBRT tumor control

ABSTRACT CONTENT AND FORMAT
All presentations must be scientific in nature and without inclusion of commercial messages or inappropriate references to specific products, services, or commercial concerns. The title should be in lowercase letters with only the first word capitalized unless it is normally capitalized.

EXAMPLE: Temperature dependence of ionizing radiation effect on dry preparations of bacterial DNA. The body of the abstract should be single-spaced. Tables, graphs, and structural formulae may not be included, although simple mathematical formulae are acceptable.

PRESENTATION
Poster dimensions are limited to 48" (width) x 48" (height) (1.21m x 1.21m or 4’ x 4’). Each poster should include a heading with title and author(s) using lettering at least 22mm (1") high. The abstract should be part of the poster presentation. The legible print should be viewable from 1 meter away. Therefore, lettering should be heavy and at least 10mm (3/8") high.

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 2019 conference.
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 June 17, 2019 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 tenth year, a special one-day education workshop for Scholars-in-Training (SIT) members will be held on Saturday, November 2, 2019, 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.
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 June 17, 2019.

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.