Radiation Research Society
55th Annual Meeting

Savannah Riverfront Marriott Hotel
Savannah, GA

October 4th–7th, 2009

Program Book

The Radiation Research Society's objectives are threefold:

- To encourage in the broadest manner the advancement of radiation research in all areas of the natural sciences;
- To facilitate cooperative research between the disciplines of physics, chemistry, biology and medicine in the study of the properties and effects of radiation;
- To promote dissemination of knowledge in these and related fields through publications, meetings and educational symposia;

Meetings

The Society holds an annual meeting that features both contributed and invited papers from all fields of radiation research, particularly physics, chemistry, biology and medicine. The presentations include award and invited lectures and invited symposia devoted to specific topics of current interest, refresher courses and workshops. Poster presentations complementary to the oral sessions provide a more informal opportunity for communication between the attendees.

Exhibits

Location: Savannah Foyer

Sunday, Oct 4th	10:00am – 5:00pm
Monday, Oct 5th	8:00am – 5:00pm
Tuesday, Oct 6th	8:00am – 6:30pm
Wednesday, Oct 7th	8:00am – 12:00pm

Posters

Location: Atrium, Plaza, and Mezzanine

Poster Setup:

Saturday, October 3rd	8:00am – 6:00pm
Sunday, October 4th	7:00am – 12:00pm

Poster numbers will be handed out with your registration materials at the Registration Desk located in the Savannah Foyer.

Poster Tear Down:
Wednesday, October 7th 12:00pm – 2:00pm

Poster Sessions

Poster presentations have been grouped into research themes amd are held during the following times:

Cell/Tissue Signaling-I
Radiation Countermeasures-I
Sunday, Oct. 4th at 1:00pm – 2:00pm

High LET/Space
Physico-chemical Events
Sunday, Oct. 4th at 2:00pm – 3:00pm

DNA Damage, Repair and Response-I
Epidemiology
Stem Cells
Monday, Oct. 5th at 1:30pm – 2:15pm

Cell/Tissue Signaling-II
Radiation Countermeasures-II
Monday, Oct. 5th at 2:15pm – 3:00pm

Bystander and Adaptive Responses
Experimental Therapeutics-I
Tuesday, Oct. 6th at 1:30pm – 2:30pm

DNA Damage, Repair and Response-II
Radiation Countermeasures-III
Tuesday, Oct. 6th at 4:30pm – 5:30pm

Experimental Therapeutics-II
Mutagenesis, Clastogenesis, Carcinogenesis
Tuesday, Oct. 6th at 5:30pm – 6:30pm

Registration Desk/Savannah Foyer

Registration material may be picked up here and staff will be available to answer questions. These hours are:

Saturday, Oct. 3rd	3:00pm – 7:00pm
Sunday, Oct. 4th	7:00am – 5:30pm
Monday, Oct. 5th	7:00am – 5:30pm
Tuesday, Oct. 6th	7:00am – 5:00pm
Wednesday, Oct. 7th	7:00am – 12:00pm

RRS Business Meeting

Tuesday, October 6th at 12:00pm – 1:30pm
Box lunches will be available for the cost of $26.00. You may purchase a ticket at the registration desk.

Social Programs

Saturday, Oct. 3rd from 6:00pm – 9:00pm
Scholars-in-Training Reception will be held at a local Savannah pub. Check onsite for details.

Sunday, Oct. 4th from 6:30pm – 8:30pm
Failla Reception will be held on the Savannah River Queen Riverboat

Monday, Oct. 5th from 6:00pm – 8:00pm
Michael Fry and Marie Curie Award Reception will be held at the Morris Center, Trustees' Garden

Speaker Ready Room

The speaker ready room will be located in the General Macintosh room.

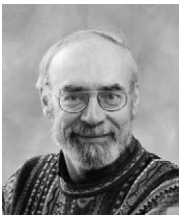
SIT Lounge

The SIT Lounge is located in the Chatham room and is available for SITs to meet informally.

BR-RIDGE Room

The Telfair room is available for BR-RIDGE groups to meet as scheduled by their group leader.

Radiation Research Society Awards 2009 Annual Meeting



Failla Award and Lectureship

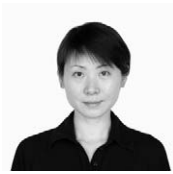
The award is given annually to an outstanding member of the radiation research community in recognition of a history of significant contributions to radiation research.

Richard P. Hill, PhD

Michael Fry Research Award

The Michael Fry Research Award was established to recognize junior scientists who have made extraordinary contributions to the field of radiation research.

Joanne B. Weidhaas, MD, PhD



Marie Curie Award

The Marie Curie Award recognizes the most outstanding Scholar-in-Training abstract submission for the annual meeting.

Jie Zhang, PhD

Editors' Award

The Board of Editors of Radiation Research and the Radiation Research Society established the "Editors' Award" to be given to a Scholar-in-Training who published an outstanding paper in Radiation Research in the previous year.

David. J. Carlson, PhD

Excellence in Mentoring Award

The Excellence in Mentoring Award recognizes the supervisor, head of department, team leader or senior scientist who demonstrates excellent mentoring skills.

Frederick E. Domann, PhD

Distinguished Service Award

The Distinguished Service Award recognizes individuals who have given continued service to the RRS above and beyond the call of duty to help further the goals and objec-tives of the Society.

Christian Streffer, PhD

Fowler Award

The Fowler Award recognizes an outstanding junior investigator for exceptional work in radiation oncology, medical physics and/or radiobiology.

Shaowen Hu, PhD

Nucleic Acids Research Award

This award, sponsored by the journal Nucleic Acids Research, is for an outstanding abstract submission from a Scholar-in-Training in the research area of genome integrity, repair and replication.

Shubhadeep Purkayastha, PhD

Scholars in Training Travel Awards

Al Rashid, Shahnaz
Queen's University Belfast

Alsbeih, Ghazi
King Faisal Specialist Hospital & Research Centre

Anderson, Jennifer
University of Oxford

Autsavapromporn, Narongchai
University of Sherbrooke

Baqai, Farnaz
Loma Linda University

Berbée, Maaike
University of Arkansas for Medical Sciences

Bertucci, Antonella
Columbia University

Black, Paul
University of Rochester

Bowman, Laura
Clemson University

Brown, Darren
Armed Forces Radiobiology Research Institute

Buonanno, Manuela
University of Medicine and Dentistry of New Jersey

Burrell, Cheryl
Loma Linda University

Butterworth, Karl
SIT Award Abstract
Queens University Belfast

Cao, Yiting
Duke University Medical Center

Cao, Yongbing
University of Rochester

Cao, Zhen
Medical College of Georgia

Chabriol-Raulli, Anne-Olivia
Eastern Virginia Medical School

Chai, Yunfei
Columbia University

Charest, Gabriel
Université de Sherbrooke

Choi, Seo-Hyun
Korea Institute of Radiological & Medical Sciences

Dewan, Zahidunnabi
New York University School of Medicine

Dregalla, Ryan
Colorado State University

Eccles, Laura
Gray Institute for Radiation Oncology and Biology

Fisher, Carolyn
Duke University

Freschauf, Gary
University of Alberta

Garty, Guy
Columbia University

Ghandhi, Shanaz
Columbia University

Girdhani, Swati
Tufts University

Green-Mitchell, Shamina
Eastern Virginia Medical School

Hanna, Gabi
Duke University

Harken, Andrew
Columbia University

Hu, Shaowen
Universities Space Research Association

Hu, Burong
University of Texas Southwestern Medical Center

Kalanetra, Karen
University of California

Kato, Takamitsu
National Institute of Radiological Sciences

Khaitan, Divya
Memorial Health University Medical Center

Khaled, Saman
University of Alabama, Birmingham

Kim, Eun-Ho
Korea Institute of Radiological and Medical Sciences

Konsoula, Zacharoula
Georgetown University

Kovalenko, Olga
University of Medicine and Dentistry of New Jersey

Krueger, Sarah
William Beaumont Hospital

Kulkarni, Shilpa
Armed Forces Radiobiology Research Institute

Kumar, Anil
Oakland University

Leloup, Corinne
Columbia University

Li, Min
University of Medicine and Dentistry of New Jersey

Li, Henghong
Georgetown University

Lindquist, Kirstin
BC Cancer Research Centre

Lominska, Chris
Georgetown University

Lyulko, Oleksandra
Columbia University

Makinde, Adeola
Loma Linda University

Manning, Casey
University of Rochester

Manzoor, Ashley
Duke University Medical Center

Maranon, David
Colorado State University

Marignol, Laure
Trinity College Dublin

Meador, Jarah
Columbia University

Mitchell, Jody
Gray Institute for Radiation Oncology and Biology

Mohapatra, Susovan
Virginia Commonwealth University

Morris, Melissa
Medical University of South Carolina

Orcutt, Kevin
University of Iowa

Park, Seongmi
University of Texas Southwestern Medical Center

Patel, Zarana
NASA Johnson Space Center, USRA

Pathak, Rupak
Armed Forces Radiobiology Research Institute

Paul, Sunirmal
Columbia University

Paun, Alexandra
McGill University

Peoples, Anita
University of Rochester

Phan, Nghi
McMaster University

Phillips, John
Vanderbilt University

Pilones, Karsten
New York University

Ptasinska, Sylwia
The Open University

Purkayastha, Shubhadeep
National Institutes of Health

Purschke, Martin
Massachusetts General Hospital

Rouschop, Kasper
University of Maastricht

Sanchez, Martha
Loma Linda University

Saroya, Rohin
McMaster University

Satyamitra, Merriline
Armed Forces Radiobiology Research Institute

Shanmugasundaram, Karthigayan
University of Texas Health Science Center at San Antonio

Sharma, Sunil
University of Arkansas for Medical Sciences

Simons, Andrean
University of Iowa

Singh, Harleen
McMaster University

Skala, Melissa
Duke University

Stisova, Viktorie
Brookhaven National Laboratory

Tamfu, Richard
University of Texas Health Science Center at San Antonio

Taylor, Kristina
McMaster University

Thotala, Dinesh Kumar
SIT Award Abstract
Vanderbilt University

Tian, Yeping
University of Rochester

Trani, Daniela
Georgetown University

Tse, Kenneth Chor Kin
Ontario Cancer Institute/Princess Margaret Hospital

Tyburski, John
National Cancer Institute

Veeraraghavan, Jamunarani
University of Oklahoma Health Sciences Center

Velissariou, Angeliki
Dublin Institute of Technology

Verduzco, Daniel
University of Texas Southwestern Medical Center

Watson, Richard
University of Rochester

Willey, Jeff
Clemson University

Wilson, Christy
Duke University

Wolf, Frank
University of Colorado Health Science Center

Wu, Michael
University of Rochester

Yin, Liangjie
University of Rochester

Yu, Xiaoyan
Emory University Winship Cancer Institute

Yue, Jingyin
Cancer Institute of New Jersey

Zhang, Mei
University of Rochester

Zumsteg, Zachary
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RRS Exhibitors

Gulmay Medical
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Precision X-Ray, Inc.
Radiation Research
Radiation Research Society History Exhibit
Varian Biosynergy

RRS Supporters

Nucleic Acids Research (NAR)

TOPICAL REVIEW

8:00am-8:50am, Oglethorpe A&B
Clustered DNA Damage
Chair: John Zimbrick
Evelyne Sage

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom E
Proton and Ion Therapy
Chair: Joseph Dynlacht
Giesela Taucher-Scholz

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom D
Radiogenomics and Prediction of Normal Tissue Response
Chair: Wolfgang Doerr
Jan Alsner

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom C
Smart Drugs and Radiation: Signal Transduction Pathways
Chair: Bo Lu
Eric Bernhard

PLENARY LECTURE

9:00am-10:00am, Savannah Ballroom A&B
Tumor Metastasis
Patricia Steeg

SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom D
Complex DNA Damage: From Theory to Biological Consequences
Chairs: Lynn Harrison and Aroumougame Asaithamby
Robert Stewart
Marc Greenberg
Alexandros Georgakilas
Lynn Harrison
Laura Eccles

SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom C
Headlines or Gossip: Communication Between Tissues and Immune Cells
Chairs: Sandra Demaria and Jacky Williams
Robert Strieter
Edith Lord
Elizabeth Repasky
Sandra Demaria

SYMPOSIUM

10:15am-12:00pm, Oglethorpe A&B
Radiation Risk Assessment and Epidemiology
Chairs: Marilyn Stovall and Noelle Metting
Francis Cucinotta
Julian Preston
Jonine Bernstein
Kazuo Neriishi

MINISYMPOSIUM

10:15am-12:00pm, Savannah Ballroom E
Mutagenesis, Clastogenesis and Carcinogenesis
Chairs: Wendy Kuhne and Ruth Wilkins
John Murnane
Jeff Bacher
Kerry George
Yuanlin Peng
Torsten Groesser
Seongmi Park
Xiaoyan Yu
Fiorenza Ianzini

POSTER SESSION

1:00pm-2:00pm, Atrium
Cell/Tissue Signaling-I
Radiation Countermeasures-I, Sponsored by the NIAID Radiation Countermeasures Program

POSTER SESSION

2:00pm-3:00pm, Atrium
High LET/Space
Physico-chemical Events

SYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom A&B
Real-time Biochemistry in the Cell
Chairs: Peter O'Neill and Sylvain Costes
Aroumougame Asaithamby
Sylvain Costes
Jennifer Anderson
Aaron Goodarzi

SYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom E
Radiation Cytogenetics: Then and Now
Chairs: Susan Bailey and Joel Bedford
Joel Bedford
David Maranon
Paul Wilson
Takamitsu Kato
Michael Cornforth
Susan Bailey

STM-RRS JOINT SYMPOSIUM

3:00pm-4:45pm, Oglethorpe A&B
Temperature Matters! New Research Directions from the Society for Thermal Medicine
Chairs: Betsy Repasky and David Needham
David Needham
Zeljko Vujaskovic
Robert J. Giffin
Dieter Haemmerich
Joseph Dynlacht

MINISYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom C
Damage to DNA and its Constituents and DNA Damage Clustering
Chairs: Jay LaVerne and Jarah Meador
Michael Huels
Richard Watson
J. Richard Wagner
Daniel Houde
Paul Black
Shubhadeep Purkayastha
Burong Hu
Artem Ponomarev

MINISYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom D
Cell Signaling and Tumor Microenvironment
Chairs: Alex Almasan and Laure Marignol
Arnulf Mayer
Yiting Cao
Paul Span
Kasper Rouschop
Yong Wang
Minyoung Lee
James Lederer
Sergey Kozin

FAILLA LECTURE

5:00pm-6:00pm, Savannah Ballroom A&B
Evolving Understanding of Tumour and Normal Tissue RadiationResponse
Richard Hill

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom D
Branching Out: Radiation and Medical Physics for Biologists and Chemists
Chair: Eleanor Blakely
Jay Burmeister

TOPICAL REVIEW

8:00am-8:50am, Oglethorpe A&B
Health Effects in Irradiated Populations
Chair: Gayle Woloschak
Amy Berrington

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom A&B
Tumor Profiling and Radiation Response
Chair: Adrian Begg
Catharine West

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom E
Redox Regulation of the Cell Cycle
Chair: Michael Robbins
Prabhat Goswami

PLENARY LECTURE

9:00am-10:00am, Savannah Ballroom A&B
Genomic Profiling and Clinical Decisions
Joseph Nevins

SYMPOSIUM

10:15am-12:00pm, Forsyth
Low Energy Electrons: From Theory to Experiment
Chairs: Michael Sevilla and Michael Huels
Leon Sanche
Thomas Orlando
Paul Scheier
Kit Bowen

SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom A&B
Non-targeted Effects: From Animals to the Clinic
Chairs: Tom Hei and Edouard Azzam
Edouard Azzam
Yunfei Chai
Bill Bonner
Norm Coleman

SNM-RRS JOINT SYMPOSIUM

10:15am-12:00pm, Oglethorpe A&B
Imaging Vasculature, Blood Flow and Angiogenesis
Chairs: David Murray and Robert Atcher
Linda Methany-Barlow
Mark Rosen
Buck Rogers
Morand Piert

MINISYMPOSIUM

10:15am-12:00pm, Savannah Ballroom D
Experimental Therapeutics
Chairs: David Gius and Ashley Manzoor
Andrean Simons
Chaitanya Nirodi
William Dynan
Gary Freschauf
Kevin Bennewith
Jaroslaw Dziegielewski
Sriram Ramanan
Michael J. Moravan

MINISYMPOSIUM

10:15am-12:00pm, Savannah Ballroom E
Responses of Cells to DNA Damage
Chairs: Kamal Datta and Brendan Price
Kenneth Chor Kin Tse
Girdhar Sharma
Corinne Leloup
Daniel Verduzco
Henning Willers
Susovan Mohapatra
Jean-Pierre Pouget
Xian Luo-Owen

POSTER SESSION

1:30pm-2:15pm, Mezzanine
DNA Damage, Repair and Response-I
Epidemiology
Stem Cells

POSTER SESSION

2:15pm-3:00pm, Atrium and Plaza
Cell/Tissue Signaling-II
Radiation Countermeasures-II

SYMPOSIUM

3:00pm-4:45pm, Oglethorpe A&B
Insights into the Mechanisms of Molecular Product Formation
Chairs: Jean Cadet and Amitava Adhikary
Yuriy Razskazovskiy
Ewald Pauwels
Yinsheng Wang
Jean Cadet

SYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom A&B
Radiation Response of Cancer Stem Cells
Chairs: Kevin Prise and Daohong Zhou
Richard Hill
Wendy Woodward
Martin Brown
William McBride

MINISYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom D
Biodosimetry and Biomarkers
Chairs: Bill Blakely and Guy Garty
Harold Swartz
Rupak Pathak
Helen Turner
Christophe Redon
Melissa Morris
Natalia Ossetrova
Yongbing Cao
Yelena Rivina

MINISYMPOSIUM

3:00pm-4:45pm, Savannah Ballroom E
High LET and Space Radiation
Chairs: Polly Chang and Shamina Green-Mitchell
Swati Girdhani
Saman Khaled
Martha Sanchez
Benjamin Chen
Laura Bowman
Eleanor Blakely
Farnaz Baqai
Anne-Olivia Chabriol-Raulli

MICHAEL FRY RESEARCH AWARD LECTURE

5:00pm-5:25pm, Savannah Ballroom A&B
Understanding microRNAs in the Response to Cytotoxic Therapy
Joanne Weidhaas

MARIE CURIE AWARD LECTURE

5:25pm-5:45pm, Savannah Ballroom A&B
Novel role of the translationally controlled tumor protein in DNA repair and the protective effects of low dose γ-Rays
Jie Zhang

TOPICAL REVIEW

8:00am-8:50am, Oglethorpe A&B
Track Structure for the 21st Century
Chair: David Becker
Michael Dingfelder

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom D
ROS and Therapeutic Responses in Cancer
Chair: Michael Freeman
Douglas Spitz

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom E
Radiation-Induced Cardiomyopathy
Chair: Elizabeth Travis
Marjan Boerma

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom C
Radiotherapy, The Tumor Microenvironment and Patient Prognosis
Chair: Bradly Wouters
Michael Milosevic

SIT PLENARY LECTURE: WHAT'S HOT?

9:00am-10:00am, Savannah Ballroom A&B
Free Radicals in Biomedical Problems-Lessons Learned from Studying Nitrones
Robert Floyd

PRESIDENTIAL SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom A/B
Abscopal Effects
Chair: Peter Corry
Anna Saran
Silvia Formenti
Olga Kovalchuk
Peter Corry

BUSINESS MEETING & LUNCHEON

12:00pm-1:30pm, Savannah Ballroom A&B
Open to all RRS members

POSTER SESSION

1:30pm-2:30pm, Plaza and Mezzanine
Bystander and Adaptive Responses
Experimental Therapeutics-I

SYMPOSIUM

2:30pm-4:15pm, Oglethorpe A&B
Water Radiolysis with Heavy Ions
Chairs: Simon Pimblott and Jacob Gersh
Larry Toburen
Jay LaVerne
Yosuke Katsumura
Simon Pimblott

SYMPOSIUM

2:30pm-4:15pm, Savannah Ballroom A&B
Novel Mitigators Against Radiation-induced Normal Tissue Damage
Sponsored by the NIAID Radiation Countermeasures Program
Chairs: Meetha Medhora and Martin Hauer-Jensen
Kwangee Kim
Kenneth Jenrow
Susan Doctrow
Sadasivan Vidyasagar

SYMPOSIUM

2:30pm-4:15pm, Savannah Ballroom C
DNA Damage Response and Human Disease
Chairs: Howard Lieberman and Henning Willers
Paul Wilson
Sandeep Burma
Fen Xia
Adayabalam Balajee

MINISYMPOSIUM

2:30pm-4:15pm, Savannah Ballroom D
Bystander and Adaptive Responses
Chairs: Shahnaz Al Rashid and Carmel Mothersill
Kanokporn Rithidech
Manuela Buonanno
Hongying Yang
Karthigayan Shanmugasundaram
Keith Stantz
Antonella Bertucci
Gregory Nelson

MINISYMPOSIUM

2:30pm-4:15pm, Savannah Ballroom E
Stem Cells
Chairs: Munira Kadhim and Sarah Krueger
Andre Obenaus
Wolfgang Doerr
Alexander Shakhov
Vijay Singh
Daohong Zhou
Christopher Lange
Anthony Chalmers
Leoni Kunz-Schughart

POSTER SESSION

4:30pm-5:30pm, Atrium
DNA Damage, Repair and Response-II
Radiation Countermeasures-III

POSTER SESSION

5:30pm-6:30pm, Atrium
Experimental Therapeutics-II
Mutagenesis, Clastogenesis, Carcinogenesis

TOPICAL REVIEW

8:00am-8:50am, Oglethorpe A&B
Branching Out: Radiation Chemistry for Biologists and Physicians
Chair: Wendy Pogozelski
Amanda Bryant-Friedrich

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom C
Stem Cells and Genomic Instability
Chair: Sally Amundson
Eric Wright

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom D
QUANTEC Guidelines for Normal Tissue Tolerance
Chair: Albert Van der Kogel
Larry Marks and John Kirkpatrick

TOPICAL REVIEW

8:00am-8:50am, Savannah Ballroom E
Smart Drugs and Radiation: DNA Repair Pathways and PARP Inhibitors
Chair: Brian Marples
Anthony Chalmers

PLENARY LECTURE

9:00am-10:00am, Savannah Ballroom A/B
Radiation Epidemiology
John Boice

WORKSHOP

10:15am-12:00pm, Forsyth
Influence of Proteins on DNA Damage
Chairs: Jamie Milligan and Bill Bernhard
Jamie Milligan
Garry Buettner
Shaowen Hu
Anita Peoples

SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom D
Space Radiation Effects
Chairs: Greg Nelson and Ted Bateman
Sharmila Bhattacharya
Jacob Raber
Michael Pecaut
Jeff Willey

SYMPOSIUM

10:15am-12:00pm, Savannah Ballroom E
Stress Responses in Stem Cells
Chairs: Charles Limoli and John Fike
Charles Limoli
Vince Caiozzo
Ruth Globus
George Georges
John Fike

MINISYMPOSIUM

10:15am-12:00pm, Oglethorpe A&B
Low Dose Radiation and Risk Assessment
Chairs: Douglas Boreham and Evagelia Laiakis
Ghazi Alsbeih
Karen Kalanetra
Min Li
Nghi Phan
Michael Munley
Rachel Lane
Lydia Zablotska

MINISYMPOSIUM

10:15am-12:00pm, Savannah Ballroom C
Radiation Protectors, Mitigators and Treatment
Chairs: Kerry O'Banion and Karsten Pilones
Xichen Zhang
Merriline Satyamitra
Vadim Krivokrysenko
Qiang Fu
Olga Kovalenko
Igor Gubrij
Terez Shea-Donohue
Ines Batinic-Haberle

12:00pm - End of Meeting

Special Sessions

FAILLA LECTURE
Sunday, October 04, 2009, 5:00 pm - 6:00 pm
Savannah Ballroom A&B

Hill, Richard P.
(AL01) *Evolving understanding of tumour and normal tissue radiation response*.

MICHAEL FRY LECTURE
Monday, October 05, 2009, 5:00 pm - 5:25 pm
Savannah Ballroom A&B

Weidhaas, Joanne B.
(AL02) *Understanding microRNAs in the response to cytotoxic therapy*.

MARIE CURIE LECTURE
Monday, October 05, 2009, 5:25 pm - 5:45 pm
Savannah Ballroom A&B

Zhang, Jie; de Toledo, Sonia M.; Guo, Guozheng; Azzam, Edouard
(AL03) *Novel role of the translationally controlled tumor protein in DNA repair and the protective effects of low dose γ-Rays*.

Plenary Sessions

P1. TUMOR METASTASIS
Sunday, October 04, 2009, 9:00 am - 10:00 am
Savannah Ballroom A&B

Steeg, Patricia S.
(P001) *Tumor metastasis: mechanistic pathways and roles for radiation research.*

P2. GENOMIC PROFILING AND CLINICAL DECISIONS
Monday, October 05, 2009, 9:00 am - 10:00 am
Savannah Ballroom A&B

Nevins, Joseph
(P002) *Genomic strategies for personalized cancer treatment.*

P3. FREE RADICALS IN BIOMEDICAL PROBLEMS-LESSONS LEARNED FROM STUDYING NITRONES
Tuesday, October 06, 2009, 9:00 am - 10:00 am
Savannah Ballroom A&B

Floyd, Robert
(P003) *Free radicals in biomedical problems - lessons learned from studying nitrones.*

P4. RADIATION EPIDEMIOLOGY
Wednesday, October 07, 2009, 9:00 am - 10:00 am
Savannah Ballroom A&B

Boice, John D., Jr.
(P004) *Radiation epidemiology - the past and possible future.*

Topical Reviews

TR1. CLUSTERED DNA DAMAGE
Sunday, October 04, 2009, 8:00 am - 8:50 am
Oglethorpe A&B
Chair: Zimbrick, John

Sage, Evelyne; Kozmin, Stanislav; Eot-Houllier, Gregory; Sedletska, Yuliya; Reynaud-Angelin, Anne; Gasparutto, Didier
(TR001) *Clustered DNA damage: relevance to mutagenesis and carcinogenesis.*

TR2. PROTON AND ION THERAPY
Sunday, October 04, 2009, 8:00 am - 8:50 am
Savannah Ballroom E
Chair: Dynlacht, Joseph

Taucher-Scholz, Gisela
(TR002) *Proton and heavy ion radiotherapy.*

TR3. RADIOGENOMICS AND PREDICTION OF NORMAL TISSUE RESPONSE
Sunday, October 04, 2009, 8:00 am - 8:50 am
Savannah Ballroom D
Chair: Doerr, Wolfgang

Alsner, Jan
(TR003) *Radiogenomics and prediction of normal tissue response.*

TR4. SMART DRUGS AND RADIATION: SIGNAL TRANSDUCTION PATHWAYS
Sunday, October 04, 2009, 8:00 am - 8:50 am
Savannah Ballroom C
Chair: Lu, Bo

Bernhard, Eric J.
(TR004) *Modulating radiosensitivity by molecular targeting of signal transduction pathways.*

TR5. BRANCHING OUT: RADIATION AND MEDICAL PHYSICS FOR BIOLOGISTS AND CHEMISTS
Monday, October 05, 2009, 8:00 am - 8:50 am
Savannah Ballroom D
Chair: Blakely, Eleanor A.

Burmeister, Jay
(TR005) *Branching out: Radiation and medical physics for biologists and chemists.*

TR6. HEALTH EFFECTS IN IRRADIATED POPULATIONS
Monday, October 05, 2009, 8:00 am - 8:50 am
Oglethorpe A&B
Chair: Woloschak, Gayle

Berrington, Amy
(TR006) *Late health effects in irradiated populations.*

TR7. TUMOR PROFILING AND RADIATION RESPONSE
Monday, October 05, 2009, 8:00 am - 8:50 am
Savannah Ballroom A&B
Chair: Begg, Adrian C.

West, Catharine M.
(TR007) *Tumor profiling and radiation response.*

TR8. REDOX REGULATION OF THE CELL CYCLE
Monday, October 05, 2009, 8:00 am - 8:50 am
Savannah Ballroom E
Chair: Robbins, Mike E.

Goswami, Prabhat C.
(TR008) *Redox control of the cell cycle in health and disease.*

TR9. TRACK STRUCTURE FOR THE 21ST CENTURY
Tuesday, October 06, 2009, 8:00 am - 8:50 am
Oglethorpe A&B
Chair: Becker, David

Dingfelder, Michael
(TR009) *Track structure for the 21st century.*

TR10. ROS AND THERAPEUTIC RESPONSES IN CANCER
Tuesday, October 06, 2009, 8:00 am - 8:50 am
Savannah Ballroom D
Chair: Freeman, Michael L.

Spitz, Douglas R.
(TR010) *Superoxide and Hydrogen Peroxide-Mediated Metabolic Oxidative Stress: Implications for Cancer Therapy.*

TR11. RADIATION-INDUCED CARDIOMYOPATHY
Tuesday, October 06, 2009, 8:00 am - 8:50 am
Savannah Ballroom E
Chair: Travis, Elizabeth

Boerma, Marjan
(TR011) *Radiation-induced Heart Disease.*

TR12. RADIOTHERAPY, THE TUMOR MICROENVIRONMENT AND PATIENT PROGNOSIS
Tuesday, October 06, 2009, 8:00 am - 8:50 am
Savannah Ballroom C
Chair: Wouters, Bradly G.

Milosevic, Michael
(TR012) *The human tumor microenvironment and clinical response to radiotherapy: Current knowledge and future opportunities.*

TR13. BRANCHING OUT: RADIATION CHEMISTRY FOR BIOLOGISTS AND PHYSICIANS
Wednesday, October 07, 2009, 8:00 am - 8:50 am
Oglethorpe A&B
Chair: Pogozelski, Wendy K.

Bryant-Friedrich, Amanda
(TR013) *Branching out: Radiation chemistry in a biological environment for biologists and physicians.*

TR14. STEM CELLS AND GENOMIC INSTABILITY
Wednesday, October 07, 2009, 8:00 am - 8:50 am
Savannah Ballroom C
Chair: Amundson, Sally

Wright, Eric
(TR014) *Stem cells and genomic instability.*

TR15. QUANTEC GUIDELINES FOR NORMAL TISSUE TOLERANCE
Wednesday, October 07, 2009, 8:00 am - 8:50 am
Savannah Ballroom D
Chair: Van der Kogel, Albert J.

Marks, Lawrence B.; **Kirkpatrick, John P.**
(TR015) *QUANTEC guidelines for estimating normal tissue outcomes.*

TR16. SMART DRUGS AND RADIATION: DNA REPAIR PATHWAYS AND PARP INHIBITORS
Wednesday, October 07, 2009, 8:00 am - 8:50 am
Savannah Ballroom E
Chair: Marples, Brian

Chalmers, Anthony J.
(TR016) *Smart drugs and radiation: DNA repair pathways and PARP inhibitors.*

Workshops

WS1. INFLUENCE OF PROTEINS ON DNA DAMAGE
Wednesday, October 07, 2009, 10:15 am - 12:00 noon
Forsyth
Chair(s): Milligan, Jamie; Bernhard, William A.

Milligan, Jamie
(WS101) *Application of Condensed DNA to Examine the Effects of Amino Acids on Direct Type DNA Damage*

Buettner, Garry R.
(WS102) *Redox chemistry in the free radical and oxidative interactions of proteins and DNA, an introduction*

Hu, Shaowen; Wang, Huichen; Pluth, Janice M.; Cucinotta, Francis A.
(WS103) *Computational study on full-length human Ku70 with double stranded DNA: dynamics, interactions and functional implications*

Peoples, Anita R.
(WS104) *Influence of protein binding on DNA backbone damage produced by the direct effect*

Symposium

S1. COMPLEX DNA DAMAGE: FROM THEORY TO BIOLOGICAL CONSEQUENCES

Sunday, October 04, 2009, 10:15 am - 12:00 noon
Savannah Ballroom D
Chair(s): Harrison, Lynn; Asaithamby, Aroumougame

Stewart, Robert D.
(S101) *Induction of Clustered DNA Lesions by Ionizing Radiation - Insights from Biophysical Modeling.*

Greenberg, Marc M.
(S102) *The mutagenicity and repair of a tandem lesion is distinct from its individual components.*

Georgakilas, Alexandros G.
(S103) *Induction and processing of DNA damage clusters in human cells and tissues.*

Harrison, Lynn
(S104) *Complex clustered lesions can be converted to double strand breaks in cells.*

Eccles, Laura J.
(S105) *Investigating the repair of clustered DNA damage in reconstituted mononucleosomes.*

S2. HEADLINES OR GOSSIP: COMMUNICATION BETWEEN TISSUES AND IMMUNE CELLS

Sunday, October 04, 2009, 10:15 am - 12:00 noon
Savannah Ballroom C
Chair(s): Demaria, Sandra; Williams, Jacqueline P.

Strieter, Robert M.
(S201) *What Differentiates Normal Lung Repair and Fibrosis.*

Lord, Edith M.
(S202) *Depletion of skin dendritic cells as a measure of radiation exposure.*

Repasky, Elizabeth
(S203) *A matter of degree: Defining mechanisms by which thermal therapy affects immune cell function.*

Demaria, Sandra
(S204) *Irradiated tumors call out to the immune system.*

S3. RADIATION RISK ASSESSMENT AND EPIDEMIOLOGY

Sunday, October 04, 2009, 10:15 am - 12:00 noon
Oglethorpe A&B
Chair(s): Stovall, Marilyn; Metting, Noelle

Cucinotta, Francis
(S301) *Models of Space Radiation Risks.*

Preston, Julian
(S302) *The changing face of radiation risk assessment?*

Bernstein, Jonine
(S303) *Radiation exposure, genetic susceptibility and bilateral breast cancer: results from the WECARE Study.*

Neriishi, Kazuo; Nakashima, Eiji; Fujiwara, Saeko; Hida, Ayumi; Akahoshi, Masazumi; Yokoyama, Tomoko; Takamatsu, Michiya; Kiuchi, Yoshiaki; Tsuiki, Eiko; Uematsu, Masafumi; Kumagami, Takeshi
(S304) *Glaucoma study in atomic bomb survivors.*

S4. REAL-TIME BIOCHEMISTRY IN THE CELL

Sunday, October 04, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom A&B
Chair(s): O'Neill, Peter; Costes, Sylvain

Asaithamby, Aroumougame
(S401) *Live cell imaging approach to directly monitor induction and repair of DNA damages generated by low- and high-linear energy transfer irradiation.*

Neumaier, Teresa; Chen, James; Yang, Brain; Thalhammer, Stefan; Barcellos-Hoff, Mary Helen; **Costes, Sylvain**
(S402) *Low and high LET elicit distinct yield and kinetic of radiation-induced foci.*

Anderson, Jennifer
(S403) *Real-time dynamics of repair proteins recruited to radiation induced DSBs: Evidence of sub-classes for DSBs.*

Goodarzi, Aaron A.
(S404) *The Heterochromatic DNA Double Strand Break Response.*

S5. RADIATION CYTOGENETICS: THEN AND NOW

Sunday, October 04, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom E
Chair(s): Bailey, Susan M.; Bedford, Joel

Bedford, Joel S.
(S501) *Early and Ongoing Contributions of Cytogenetics to Radiation Biology.*

Maranon, David G.
(S502) *Chromatin organization as a possible factor in the control of susceptibility to radiation-induced aml in mice.*

Wilson, Paul F.; Hinz, John M.; Urbin, Salustra S.; Nham, Peter B.; Thompson, Larry H.
(S503) *Influence of DNA DSB repair pathways on chromosomal aberration induction by low LET IR throughout the cell cycle in CHO cells.*

Kato, Takamitsu A.
(S504) *Influence of track directions on the biological consequences in cells irradiated with high LET heavy ions.*

Cornforth, Michael
(S505) *Next generation approaches to the analysis of structural chromosome aberrations produced by ionizing radiation: emphasis on translocations and deletions.*

Bailey, Susan M.
(S506) *Next generation approaches to the analyses of structural chromosome aberrations: emphasis on inversions.*

S6. STM-RRS JOINT SYMPOSIUM: TEMPERATURE MATTERS! NEW RESEARCH DIRECTIONS FROM THE SOCIETY FOR THERMAL MEDICINE
Sunday, October 04, 2009, 3:00 pm - 4:45 pm
Oglethorpe A&B
Chair(s): Repasky, Elizabeth; Needham, David

Needham, David
(S601) *Design and Testing of Novel Thermally Sensitive Liposomal Formulations for Treatment of Local Tumors: A New Paradigm for Drug Delivery.*

Vujaskovic, Zeljko
(S602) *MRI based non-invasive thermometry in clinical thermal therapy.*

Griffin, Robert J.
(S603) *Physiological factors in hyperthermia: a continuing and critical role in thermal therapy success and development.*

Haemmerich, Dieter
(S604) *New developments in thermal ablation.*

Dynlacht, Joseph
(S605) *Optimizing the use of hyperthermia as an adjuvant to radiotherapy: Understanding and exploiting mechanisms of heat-radiosensitization.*

S7. LOW ENERGY ELECTRONS: FROM THEORY TO EXPERIMENT
Monday, October 05, 2009, 10:15 am - 12:00 noon
Forsyth
Chair(s): Sevilla, Michael D.; Huels, Michael

Sanche, Leon
(S701) *Low energy electrons: from theory to experiments Controlling the damage induced by secondary low energy electrons: application to Radiotherapy.*

Orlando, Thomas M.
(S702) *Low-energy electron induced damage of hydrated DNA: The role of resonance scattering and diffraction.*

Scheier, Paul
(S703) *Low energy electron interactions with biomolecules from gas phase to solvated molecules.*

Bowen, Kit
(S704) *Electrophilic Properties of Isolated Biological Molecules: Anion Photoelectron Spectroscopic Studies.*

S8. NON-TARGETED EFFECTS: FROM ANIMALS TO THE CLINIC
Monday, October 05, 2009, 10:15 am - 12:00 noon
Savannah Ballroom A&B
Chair(s): Hei, Tom; Azzam, Edouard

Azzam, Edouard
(S801) *Ionizing radiation-induced bystander effects: mediating mechanisms and impact on health risks.*

Chai, Yunfei
(S802) *Radiation induced bystander mutagenesis in the gpt delta transgenic mouse model.*

Bonner, Bill
(S803) *Communication between damaged and undamaged cells.*

Coleman, Norm
(S804) *Bystander/Non-targeted effects- what they mean to the practicing radiation oncologist.*

S9. SNM-RRS JOINT SYMPOSIUM: IMAGING VASCULATURE, BLOOD FLOW AND ANGIOGENESIS

Monday, October 05, 2009, 10:15 am - 12:00 noon
Oglethorpe A&B
Chair(s): Murray, David; Atcher, Robert W.

Methany-Barlow, Linda
(S901) *Tumor Vasculature and Angiogenesis: An Overview.*

Rosen, Mark
(S902) *Non-invasive assessment of tumor neo-vasculature by DCE-MRI.*

Anderson, Carolyn J.; **Rogers, Buck E.**
(S903) *Pre-clinical PET imaging of tumor angiogenesis with peptide and nanoparticle-based agents.*

Piert, Morand
(S904) *Human angiogenesis imaging using PET.*

S10. INSIGHTS INTO THE MECHANISMS OF MOLECULAR PRODUCT FORMATION

Monday, October 05, 2009, 3:00 pm - 4:45 pm
Oglethorpe A&B
Chair(s): Cadet, Jean; Adhikary, Amitava

Razskazovskiy, Yuriy
(S1001) *Relative contributions of the C1‘, C4‘ and C5‘ pathways to radiation-induced damage to DNA based on end product analysis: direct vs. indirect effect.*

Pauwels, Ewald
(S1002) *Elucidation of radiation-induced processes using DFT calculations.*

Wang, Yinsheng
(S1003) *Bulky DNA lesions induced by ionizing radiation and endogenous sources: formation, measurement, and biological implications.*

Cadet, Jean
(S1004) *Radiation-induced decomposition pathways of DNA: from model compounds to the cells.*

S11. RADIATION RESPONSE OF CANCER STEM CELLS
Monday, October 05, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom A&B
Chair(s): Prise, Kevin M.; Zhou, Daohong

Hill, Richard
(S1101) *Cancer stem cells and tumour radioresistance: known unknowns and unknown unknowns.*

Woodward, Wendy
(S1102) *Characterization of radiation resistant stem cell phenotypes in human breast cancer.*

Brown, Martin
(S1103) *Bone-marrow derived stem cells are important for tumor response to radiation.*

McBride, William H.
(S1104) *The Impact of Cancer Stem Cells on the 4Rs of Radiation Therapy.*

Presidential Symposium

S12. ABSCOPAL EFFECTS
Tuesday, October 06, 2009, 10:15 am - 12:00 noon
Savannah Ballroom A&B
Chair(s): Corry, Peter M.

Saran, Anna; Mancuso, M.
(S1201) *Non-targeted radiation effects and cancer: new insights from mouse models.*

Formenti, Silvia C.
(S1202) *Clinical translation of combining radiotherapy and immunotherapy.*

Kovalchuk, Olga
(S1203) *Epigenetic mechanisms of abscopal/bystander effects in an animal model.*

Corry, Peter M.
(S1204) *Abscopal Suppression of Skeletal Function with Abdominal Irradiation.*

Symposium

S13. WATER RADIOLYSIS WITH HEAVY IONS
Tuesday, October 06, 2009, 2:30 pm - 4:15 pm
Oglethorpe A&B
Chair(s): Pimblott, Simon; Gersh, Jacob A.

Toburen, Larry
(S1301) *Electron transport in Amorphous Solid Water.*

LaVerne, Jay
(S1302) *OH radical yields and DNA damage.*

Katsumura, Yosuke
(S1303) *Radiolysis of water with heavy ion beams for therapy.*

Monica Huerta Parajon; LaVerne, Jay A.; **Pimblott, Simon M.**
(S1304) *Hydogen formation in the gamma and alpha radiolysis of aqueous systems.*

S14. NOVEL MITIGATORS AGAINST RADIATION-INDUCED NORMAL TISSUE DAMAGE

Tuesday, October 06, 2009, 2:30 pm - 4:15 pm
Savannah Ballroom A&B
Chair(s): Medhora, Meetha; Hauer-Jensen, Martin

Kim, Kwangee
(S1401) *High throughput screening identifies two classes of antibiotics as radioprotectors: tetracyclines and fluoroquinolones.*

Jenrow, Kenneth
(S1402) *Electrophysiological assessment of the effects of whole brain radiation on hippocampal function and their pharmacologic mitigation.*

Doctrow, Susan R.; Damphousse, C. A.; Fish, Brian L.; Huffman, K.; Jourdan, Megan M.; Lazarova, Zelmira; Moulder, John E.; Rosenthal, R. A.
(S1403) *Synthetic Superoxide Dismutase/Catalase Mimetics to Mitigate Radiation-Induced Normal Tissue Damage.*

Vidyasagar, Sadasivan
(S1404) *FGF-P mitigates mucosal electrolyte transport dysfunction after radiation: Potential impact on vomiting and diarrhea.*

S15. DNA DAMAGE RESPONSE AND HUMAN DISEASE

Tuesday, October 06, 2009, 2:30 pm - 4:15 pm
Savannah Ballroom C
Chair(s): Lieberman, Howard B.; Willers, Henning

Wilson, Paul F.; Hinz, John M.; Nham, Peter B.; Urbin, Salustra S.; Jones, Irene M.; Thompson, Larry H.
(S1501) *Impact of inter-individual genetic variation on low dose IR responses and risks.*

McEllin, Brian; Mukherjee, Bipasha; Camacho, Cristel; Tomimatsu, Nozomi; **Burma, Sandeep**
(S1502) *Genetic basis of glioblastoma radioresistance and strategies for radiosensitization.*

Xia, Fen
(S1503) *BRCA1 assures the fidelity of DNA double-strand break repair.*

Balajee, Adayabalam S.
(S1504) *Role of human RecQ helicases in genomic stability.*

S16. SPACE RADIATION EFFECTS

Wednesday, October 07, 2009, 10:15 am - 12:00 noon
Savannah Ballroom D
Chair(s): Nelson, Gregory A.; Bateman, Ted

Bhattacharya, Sharmila
(S1601) *Space flight experiments.*

Raber, Jacob
(S1602) *Potential short- and long-term effects of environmental conditions during space missions on cognitive function.*

Pecaut, Michael J.; Baqai, F P.; Bayeta, Ej M.; Gridley, D S.
(S1603) *Potential impact of radiation, gravity, and psychological stress components of the spaceflight environment on the immune system.*

Willey, Jeff
(S1604) *Radiation-induced osteoporosis as a skeletal challenge during spaceflight.*

S17. STRESS RESPONSES IN STEM CELLS

Wednesday, October 07, 2009, 10:15 am - 12:00 noon
Savannah Ballroom E
Chair(s): Limoli, Charles; Fike, John R.

Limoli, Charles
(S1701) *Redox regulation of stem cell function.*

Caiozzo, Vince
(S1702) *Radiosensitivity of myogenic precursor cells.*

Globus, Ruth K.
(S1703) *Bone progenitor cell responses to irradiation and the regulation of skeletal remodeling.*

Georges, George E.
(S1704) *Hematopoietic stem cells (HSC) survive and reconstitute hematopoiesis after 8 Gy total body irradiation (TBI) in dogs given intensive supportive care and cytokine treatment.*

Fike, John R.
(S1705) *Radiation-Induced Changes in Neurogenesis are reduced in Mice Deficient in CuZnSOD or MnSOD.*

Mini Symposium

MS1. MUTAGENESIS, CLASTOGENESIS, AND CARCINOGENESIS

Sunday, October 04, 2009, 10:15 am - 12:00 noon
Savannah Ballroom E
Chair(s): Kuhne, Wendy; Wilkins, Ruth

Zschenke, Oliver; Kulkarni, Avanti; Miller, Douglas; Reynolds, Gloria; **Murnane, John P.**
(MS101) *Sensitivity of regions near telomeres to DNA double-strand breaks in a human cancer cell line.*

Steffen, Leta; Weil, Michael; Ray, Andrew; Genik, Paula; Ullrich, Robert; Fallgren, Christina; Story, Michael; Gillan, Jackie; Bouffler, Simon; Bourdeau-Hell, Jeanne; **Bacher, Jeff**
(MS102) *Microsatellite instability in radiation-induced acute myeloid leukemia.*

George, Kerry A.; Hada, Megumi; Patel, Zarana; Huff, Janice; Pluth, Janice M.; Cucinotta, Francis A.
(MS103) *Chromosome aberrations in DNA repair-defective cell lines: comparisons of dose rate and radiation quality.*

Peng, Yuanlin; Warner, Christy L.; Weil, Michael M.; Ullrich, Robert L.; Bedford, Joel S.
(MS104) *Radiation Induced PU.1 Deletion and Chromosome Aberrations in CBA and C57BL/6 Fibroblasts.*

Groesser, Torsten; Chang, Hang; Fontenay, Gerald; Parvin, Bahram; Mary Helen Barcellos-Hoff; Rydberg, Bjorn
(MS105) *Persistence of gamma-H2AX and 53BP1 foci in proliferating and non-proliferating human mammary epithelial cells after exposure to gamma rays or Fe ions.*

Park, Seongmi; Ding, Lianghao; Xie, Yang; Peyton, Michael; Minna, John; Story, Michael D.
(MS106) *Differences in survival, gene expression and cellular transformation in isogenic variants of human bronchial epithelial cells after low LET or HZE particle exposures.*

Yu, Xiaoyan; Lu, Lin; Wen, Siyuan; V, Ya
(MS107) *Fhit prevents radiation induced carcinogenesis.*

Ianzini, Fiorenza; Kosmacek, Elizabeth A.; Napoli, Eleonora; Szyperski, Melissa R.; Schwertner, Adam B.; Mackey, Michael A.
(MS108) *Tumor and normal human cell lines exposed to sparsely and densely ionizing radiation express meiotic-specific proteins and cancer stem cell markers.*

MS2. DAMAGE TO DNA AND ITS CONSTITUENTS AND DNA DAMAGE CLUSTERING

Sunday, October 04, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom C
Chair(s): LaVerne, Jay A.; Meador, Jarah

Vall-llosera, Gemma; Sankari, Rami; Sarabipour, Sarvenaz; Rachlew, Elisabeth; Kukk, Edwin; **Huels, Michael A.**
(MS201) *Radiation damage to genetic sugars: why nature chose DNA.*

Watson, Richard M.; Bernhard, William A.
(MS202) *A novel analytical technique for analyzing nucleobase influence on DNA strand breaks caused by direct ionizing radiation.*

Li, Zejun; Cloutier, Pierre; Sanche, Léon; **Wagner, J. Richard**
(MS203) *Low energy electron induced DNA damage: effect of different base substitutions in oligomer trimers.*

Houde, Daniel; Meesat, Ridthee; Allard, Jean-Francois; Wagner, Richard J.; Jay-Gerin, Jean-Paul; Tremblay, Luc; Lepage, Martin
(MS204) *Fricke and polymer gel dosimetry of femtosecond laser pulse filamentation and radiation chemical effects of laser irradiation on thymidine solution. Comparison with 60Co irradiation.*

Black, Paul J.; Bernhard, William
(MS205) *A new technique for studying radiation induced strand breaks in DNA: tunable filtration of DNA oligomers through nanoporous silicon membranes.*

Purkayastha, Shubhadeep; Datta, Kamal; Neumann, Ronald D.; Winters, Thomas A.
(MS206) *Differential positional effects of base damage clustering on the processing of complex DNA double strand breaks by non-homologous end joining and base excision repair.*

Hu, Burong; Aroumougame, Asaithamby; Chen, David J.
(MS207) *Cellular responses to clustered DNA damages induced by high energy and high-Z particles irradiation.*

Ponomarev, Artem L.; Cornforth, Michael N.; Loucas, Bradford D.; Cucinotta, Francis A.
(MS208) *A Monte-Carlo model for the formation of radiation-induced chromosomal aberrations.*

MS3. CELL SIGNALING AND TUMOR MICROENVIRONMENT

Sunday, October 04, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom D
Chair(s): Almasan, Alex; Marignol, Laure H.

Mayer, Arnulf G.; Steimel, Michaela; Wree, Alexander; Kelleher, Debra G.; Vaupel, Peter
(MS301) *Allografted sarcoma cell growth results in microenvironments similar to pre-implantation conditions.*

Cao, Yiting; Eble, Joseph M.; Yuan, Hong; Moon, Ejung; Provenzale, James M.; Rich, Jeremy N.; Dewhirst, Mark W.
(MS302) *Doxorubicin upregulates hypoxia-inducible factor-1 expression through stat1 / inductible nitric oxide synthase signaling pathway.*

Wennemers, Marloes; Sweep, Fred C. C.; Bussink, Jan; **Span, Paul N.**
(MS303) *Does Tribbles-3 mediate the ER stress-induced poor prognosis in breast cancer?*

Rouschop, Kasper M. A.; van den Beucken, Twan; dubois, Ludwig; niessen, Hanneke; Bussink, Johan; Savelkouls, Kim; Mujcic, Hilda; Lambin, Philippe; Albert J. van der Kogel; Koritzinsky, Marianne; Wouters, Bradly G.
(MS304) *The unfolded protein response protects cells during hypoxia through preservation of autophagic capacity.*

Wang, Yong; Morris, Melissa N.; Zhou, Daohong
(MS305) *Identification and characterization of senescence-associated microRNAs induced by ionizing radiation.*

Lee, Minyoung; Lee, Hae-June; Yeung Bae Jin; Park, Jung-Jin; Bae, Sangwoo; Lee, Yun-Sil
(MS306) *Integrin β1 Sialylation is involved in radiation-induced migration and metastasis.*

Delisle, Adam; Tajima, Goro A.; O'Leary, Fionnuala; Ikeda, Kimiko; Hanschen, Marc; **Lederer, James A.**
(MS307) *Phenotypic changes in immune cell populations and reactivity in an outbred mouse model of radiation combined injury.*

Kozin, Sergey V.; Duda, Dan G.; Kamoun, Walid S.; Dawson, Michelle; Jain, Rakesh K.
(MS308) *The role of bone marrow-derived cell recruitment in tumor recurrence following local irradiation.*

MS4. EXPERIMENTAL THERAPEUTICS

Monday, October 05, 2009, 10:15 am - 12:00 noon
Savannah Ballroom D
Chair(s): Gius, David R.; Manzoor, Ashley

Simons, Andrean L.; Parsons, Arlene D.; Foster, Katherine A.; Orcutt, Kevin P.; Fath, Melissa A.; Spitz, Douglas R.
(MS401) *Inhibition of glutathione and thioredoxin metabolism enhances sensitivity to perifosine in head and neck cancer cells.*

Keqin Ren Ren; Cho, Jaeho; Das, Amit K.; Chen, Benjamin P.; Minna, John D.; Chen, David J.; **Nirodi, Chaitanya S.**
(MS402) *DNA repair deficits and radiosensitivity associated with somatic activating mutations of EGFR in non small cell lung carcinoma.*

Li, Shuyi; Xiong, Hairong; Lee, Robert J.; Gao, Jingchun; Kuhne, Wendy; Edwards, John G.; **Dynan, William S.**
(MS403) *Receptor-mediated delivery of an anti-DNA-PKcs single-chain antibody to the nuclei of human cancer cells and demonstration of radiation sensitivity enhancement in vitro.*

Freschauf, Gary K.; Karimi-Busheri, Feridoun; Mereniuk, Todd; Pasarj, Phuwadet; Holmes, Charles; Rininsland, Frauke; Hall, Dennis; Weinfeld, Michael
(MS404) *Radiosensitization by small molecule inhibitor of human polynucleotide kinase.*

Bennewith, Kevin L.; Koehne, Amanda L.; Hamm, Christine M.; Jia, Jessica X.; Graves, Edward E.; Yang, George P.; Giaccia, Amato J.
(MS405) *Use of the hypoxia-activated DNA cross-linking agent PR-104 to target hypoxic tumour cells in human pancreatic tumour xenografts.*

Dziegielewski, Jaroslaw; Pemberton, Bradley L.; Dunlap-Brown, Marya E.; Larner, James M.; Parsons, Sarah J.; Amorino, George P.
(MS406) *SR48692, a specific neurotensin receptor (NTR1) antagonist, sensitizes prostate cancer cells to ionizing radiation, in both in-vitro and in-vivo models.*

Ramanan, Sriram; Kooshki, Mitra; Zhao, Weiling; Hsu, Fang-Chi; Riddle, David R.; Robbins, Mike E.
(MS407) *Administering the PPARalpha agonist fenofibrate preserves hippocampal neurogenesis following whole-brain irradiation in mice.*

Moravan, Michael J.; Hurley, Sean D.; Sorensen, Elizabeth W.; Hernady, Eric; Trojanczyk, Lee A.; Olschowka, John A.; Williams, Jacqueline P.; O'Banion, M. Kerry; Wu, Michael
(MS408) *Acute and chronic neuroinflammation with delayed infiltration of peripherally-derived immune cells in C57BL/6J mouse brain following cranial irradiation.*

MS5. RESPONSES OF CELLS TO DNA DAMAGE

Monday, October 05, 2009, 10:15 am - 12:00 noon
Savannah Ballroom E
Chair(s): Datta, Kamal; Price, Brendan

Tse, Kenneth Chor Kin; Jalali, Farid; Ahmed, Kashif; Kumareswar, Ramya; Dellaire, Graham; Bazett-Jones, David P.; Bristow, Robert G.
(MS501) *Pml nuclear bodies are juxtaposed to dna-dsbs following ir-induced dna damage.*

Sharma, Girdhar G.; So, Sairie; Chen, David J.; Bhidra, Utpal; Gupta, Arun; Misri, Sandeep; Kumar, Rakesh; Cote, Jacques; Pandita, Tej K.
(MS502) *MOF function is critical in DNA Damage Response.*

Leloup, Corinne; Xiang Yuan Wang; Hopkins, Kevin M.; Zhu, Aiping; Wolgemuth, Debra J.; Lieberman, Howard B.
(MS503) *Mrad9B is important for the cellular response to DNA damage and essential for embryogenesis.*

Verduzco, Daniel; Amatruda, James F.
(MS504) *A mutation in zebrafish cdc25a induces a G2/M DNA damage checkpoint response.*

Willers, Henning; Li, Li; Fournier, Loreen; Borgmann, Kerstin; Dahm-Daphi, Jochen; Kachnic, Lisa A.
(MS505) *A novel role of FANCD2 in mediating cellular resistance to topoisomerase II poisons.*

Mohapatra, Susovan; Povirk, Lawrence F.; Khan, Imran; Stillio, Misako Kawahara; Yannone, Steven M.
(MS506) *Restoration of chemo/radioresistance and double-strand break repair proficiency by wild-type but not endonuclease-deficient artemis.*

Pouget, Jean-Pierre; Piron, Béréngère; Boutaleb, Samir; Bascoul-Mollevi, Caroline; Bardiès, Manuel; Kotzki, Pierre-Olivier; Pèlegrin, Monique; Pèlegrin, André
(MS507) *DNA damage and involvement of p53 in the response of tumor cells to radioimmunotherapy using 125I-labeled monoclonal antibodies.*

Luo-Owen, Xian; Andres, Melba L.; Harding, Gordon P.; Moyers, Michael F.; Slater, James M.; Gridley, Daila S.
(MS508) *Responses of human lung epithelial and V79 cells after proton irradiation within bragg curve.*

MS6. BIODOSIMETRY AND BIOMARKERS
Monday, October 05, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom D
Chair(s): Blakely, William F.; Garty, Guy Y.

Swartz, Harold; Demidenko, Eugene; Dong, Ruhong; Grinberg, Oleg Y.; Gui, Jiang; He, Xiaoming; Lesniewski, Piotr; Nicolalde, Javier; Ruuge, Andres; Wilcox, Dean; Williams, Ben
(MS601) *Use of EPR for dosimetry for management of potential radiation exposures to a large population.*

Pathak, Rupak; Ramakumar, Adarsh; Subramanian, Uma; Prasanna, Pataje G. S.
(MS602) *Analysis of chromosomal aberrations involving human chromosome 1 and 2 in interphase- and metaphase-spreads after 60Co γ-irradiation.*

Turner, Helen C.; Garty, Guy; Lyulko, Oleksandra V.; Brengues, Muriel; Bertucci, Antonella; Schafer, Julia; Randers-Pehrson, Gerhard; Zenhausern, Frederic; Brenner, David J.
(MS603) *Adaptation of γ-H2AX and micronucleus assays for automated processing.*

Redon, Christophe E.; Nakamura, Asako J.; Rahman, Arifur; Blakely, William F.; Bonner, William M.
(MS604) *Gamma-H2AX as a biodosimeter for ionizing radiation exposure: an in vivo study with non-human primates.*

Morris, Melissa N.; Zhou, Daohong; Wang, Yong
(MS605) *Identification and characterization of ionizing radiation responsive microRNAs.*

Ossetrova, Natalia I.; Farese, Ann M.; MacVittie, Thomas J.; Cohen, Melanie; Rahman, Arifur; Sandgren, Davide J.; Gallego, Sergio; Blakely, William F.
(MS606) *Early-phase and organ-specific protein biomarkers for radiation dose and injury assessment.*

Cao, Yongbing; Zhang, Bingrong; Zhang, Mei; Yang, Shanmin; Tian, Yeping; Zhang, Lei; Zhang, LuLu; Zhang, Aiguo; Vidyasagar, Sadasivan; Okunieff, Paul; Zhang, Lurong
(MS607) *Alterations of plasma DNA concentration after partial body radiation.*

Rivina, Yelena O.; Schiestl, Robert H.
(MS608) *From yeast to mice: a novel method for establishing radiation-induced cell and DNA damage mitigation activity of small molecules.*

MS7. HIGH LET AND SPACE RADIATION
Monday, October 05, 2009, 3:00 pm - 4:45 pm
Savannah Ballroom E
Chair(s): Chang, Polly Y.; Green-Mitchell, Shamina M.

Girdhani, Swati; Hahnfeldt, Philip; Beheshti, Afshin; Lamont, Clare; Anaya, Zachary; Peluso, Michael; Schwager, Christian; Enderling, Heiko; Huber, Peter; Abdollahi, Amir; Hlatky, Lynn
(MS701) *Antiangiogenic effects of proton irradiation.*

Khaled, Saman F.; Gupta, Kiran; Wu, Xing; Yu, Tao; Chang, Polly; Kucik, Dennis F.
(MS702) *Monocytic adhesion to human aortic endothelium depends on dose, quality, and time after irradiation.*

Sanchez, Martha C.; Bianski, Brandon M.; Ortloff, Leticia S.; Green, Lora M.
(MS703) *Proton and HZE particle radiation affect glutamate function in various neural cellular phenotypes.*

Chen, Benjamin P. C.; DeCaroli, Nathan A.; Ahn, Haram; Melvin, Neal; Eisch, Amelia
(MS704) *Impact of 56Fe particle irradiation on adult neural stem cells in vivo.*

Bowman, Laura C.; Livingston, Eric W.; Willey, Jeffrey S.; Robbins, Mike E.; Bourland, J. D.; Bateman, Ted A.
(MS705) *Characterization of a murine model for radiation-induced bone loss.*

Blakely, Eleanor A.; Bjornstad, Kathleen A.; Rosen, Chris J.; Bunin, Deborah; Moncaster, Juliet A.; Goldstein, Lee E.; Chang, Polly Y.
(MS706) *CD44 gene expression in rat lenses in vivo nine months after low-dose particle radiation.*

Baqai, Farnaz P.; Gridley, Daila S.; Bayeta, Erben; Andres, Melba; Makinde, Adeola; Luo-Owen, Xian; Rizvi, Asma; Rightnar, Steve; Pecaut, Michael J.
(MS707) *Effects of whole-body proton radiation on immune response to E.coli.*

Chabriol-Raulli, Anne-Olivia; Sanford, Larry; Singletary-Britten, Sylvia; Britten, Richard
(MS708) *Exposure to HZE irradiation perturbs sleep patterns in Wistar rats.*

MS8. BYSTANDER AND ADAPTIVE RESPONSES

Tuesday, October 06, 2009, 2:30 pm - 4:15 pm
Savannah Ballroom D
Chair(s): Al Rashid, Shahnaz; Mothersill, Carmel

Rithidech, Kanokporn; Yin, Xian; Honikel, Louise; Reungpatthanaphong, Paiboon; Witzmann, Frank
(MS801) *Characterization of protein expression profiles associated with adaptive response induced by low-dose radiation.*

Buonanno, Manuela; de Toledo, Sonia M.; Howell, Roger W.; Pain, Debkumar; Azzam, Edouard I.
(MS802) *Radiation quality and the induction of long-term biological effects in irradiated normal human cells and neighboring bystanders: the role of oxidative metabolism.*

Yang, Hongying; Magpayo, Nicole; Held, Kathryn D.
(MS803) *Adaptive response in bystander AG01522 human*

fibroblasts sharing medium with cells irradiated with iron ions.

Shanmugasundaram, Karthigayan; Natarajan, Aravindan; Tamfu, Richard C.; Otto, Randal A.; Natarajan, Mohan
(MS804) *Radiation-induced non-targeted effect in tumor angiogenesis is mediated by IKK-β activation.*

Stantz, Keith M.; Cao, Ning; Liu, Bo; Chin-Sinex, Helen; Mendonca, Marc; Jian Jian Li
(MS805) *Effects of Radiation on NF-κB and tumor hemodynamics in Breast Tumors.*

Bertucci, Antonella; Pocock, Roger D. J.; Randers-Pehrson, Gerhard; Brenner, David J.
(MS806) *Microbeam induced stress response in the C. elegans nematode.*

Jones, Tamako; Ortloff, Leticia; Perez, Celso; **Nelson, Gregory A.**
(MS807) *In vivo Bystander Effects in the C. elegans Intestine.*

MS9. STEM CELLS

Tuesday, October 06, 2009, 2:30 pm - 4:15 pm
Savannah Ballroom E
Chair(s): Kadhim, Munira A.; Krueger, Sarah A.

Obenaus, Andre; Ashwal, Stephan; Snyder, Evan; Napoli, Eleonora; Kosmacek, Elizabeth A.; Mackey, Michael A.; Ianzini, Fiorenza
(MS901) *Alterations in neural stem cells following ionizing radiation exposures: functional magnetic resonance imaging and live cell imaging studies.*

Haagen, Julia; Noack, Ruth; Schmidt, Margret; Siegemund, Annett; **Doerr, Wolfgang**
(MS902) *Amelioration of radiation-induced oral mucositis (mouse) by administration of mesenchymal stem cells.*

Shakhov, Alexander; Strom, Eugenia; Ryabokon, Petro; Gurova, Katerina; Bone, Frederick; Kononov, Eugene; Toshkova, Troitza; Singh, Vijay; Feinstein, Elena
(MS903) *Protectan CBLB612 - a new agent for radical improvement of hematopoietic stem cell proliferation and mobilization for treatment of cancer and acute radiation syndrome.*

Singh, Vijay K.; Brown, Darren S.; Fatanmi, Oluseyi O.; Parekh, Vaishali I.; Gille, Daphne A.; Whitnall, Mark H.; Christen, Julie L.
(MS904) *Myeloid progenitor cells as an effective treatment for acute radiation syndrome.*

Wang, Yong; Liu, Lingbo; Pazhanisamy, Senthil K.; Meng, Aimin; **Zhou, Daohong**
(MS905) *Total body irradiation induces persistent oxidative stress selectively in murine hematopoietic stem cells.*

Lange, Christopher S.; Jie, Shy'Ann; Groysman, Anna; Kaity Sanz Melo; Rineer, Justin; Etwaru, Davina; Lennox, Alison; Savir, Guy; Djordjev, Bozidar; Abulafia, Ovadia; Rotman, Marvin

(MS906) *A quantitative assay for cancer stem cell sensitivity to treatment modalities and prediction of individual patient outcomes.*

Amoah-Buahin, Evelyn; Yildirim, Salih; **Chalmers, Anthony J.**
(MS907) *Mechanisms underlying radiation resistance in glioma stem cells.*

Dittfeld, Claudia; Dietrich, Antje; Peickert, Susann; Grade, Marian; Ried, Thomas; **Kunz-Schughart, Leoni A.**
(MS908) *Is CD133 expression in colorectal cancer lines selective for a tumor-initiating or radioresistant cell population?*

MS10. LOW DOSE RADIATION AND RISK ASSESSMENT
Wednesday, October 07, 2009, 10:15 am - 12:00 noon
Oglethorpe A&B
Chair(s): Boreham, Douglas; Laiakis, Evagelia C.

Alsbeih, Ghazi; Al-Harbi, Najla; Al-Buhairi, Muneera; Al-Hadyan, Khaled
(MS1001) *The association of MDM2 promoter T309G and TP53 G72C polymorphisms with radiosensitivity and cancer predisposition.*

Kalanetra, Karen M.; Berglund, Susanne R.; Yunis, Reem; Albrecht, Huguette; Wu, Shiquan; Lu, Ruixiao; Lehmann, Joerg; Witt, Heather; Stern, Robin; Rocke, David M.; Goldberg, Zelanna
(MS1002) *Gene expression time course response of human tissue exposed to low dose ionizing radiation in vivo.*

Li, Min; Shim, Grace; Sonia de Toledo; Pain, Debkumar; Azzam, Edouard
(MS1003) *In vivo effects of low dose ionizing radiation on mitochondrial functions.*

Phan, Nghi; Boreham, Douglas R.
(MS1004) *Biological effects of single and repeated diagnostic CT scans.*

Munley, Michael; Wheeler, Kenneth; Moore, Joseph; Olson, John; Miller, Mark
(MS1005) *Carcinogenic potential of low dose CT radiation.*

Lane, Rachel; Frost, Stanley; Zablotska, Lydia
(MS1006) *An update of mortality (1950–1999) in the cohort of Eldorado uranium miners.*

Zablotska, Lydia; Lane, Rachel; Frost, Stanley
(MS1007) *First analysis of cancer incidence in the cohort of Eldorado uranium miners (1969–1999) and comparison with the results of the mortality analysis.*

MS11. RADIATION PROTECTORS, MITIGATORS AND TREATMENT
Wednesday, October 07, 2009, 10:15 am - 12:00 noon
Savannah Ballroom C
Chair(s): O'Banion, M. Kerry; Pilones, Karsten A.

Zhang, Xichen; Rajagopalan, Malolan; Buchholz, Bettina; Bauer, Anthony; Franico, Darcy; Dixon, Tracy; Cao, Shaonan; Greenberger, Joel
(MS1101) *Thoracic irradiation of Nitric Oxide Synthase 1 Homologous Recombinant Negative (NOS1 -/-) mice induces esophageal dilation and early death while their mesenchymal stem cells are paradoxically radioresistant.*

Satyamitra, Merriline M.; Mullaney, Conor; Ney, Patrick; Johnson, Krista; Hunter, Jeffery; Tamburini, Paul; Wang, Yi; Springhorn, Jeremy; Srinivasan, Venkataraman
(MS1102) *A novel TPO agonist, Alxn4100TPO mitigates radiation induced lethality in CD2F1 mice by increasing thrombopoiesis.*

Krivokrysenko, Vadim; Toshkov, IIya; Gleiberman, Anatoli; Gudkov, Andrei; Feinstein, Elena
(MS1103) *Single injection of novel medical radiation countermeasure CBLB502 rescues non-human primates within broad time window after lethal irradiation.*

Fu, Qiang; Berbée, Maaike; Boerma, Marjan; Wang, Junru; Schmid, Herbert A.; Martin Hauer Jensen
(MS1104) *Development of SOM230 as a radiation mitigator: post-radiation time window and mechanism of action.*

Kovalenko, Olga A.; Yang, Zhi; Li, Min; Khorshidi, Manoochehr; Azzam, Edouard I.; Ende, Norman
(MS1105) *Human cord blood and antibiotic effect on the intestinal tract and survival of lethally irradiated mice: possible use for mass casualties.*

Gubrij, Igor B.; Boerma, Marjan; Wang, Junru; Hauer-Jensen, Martin; Burnett, Alexander F.
(MS1106) *Human recombinant IL-11 administered orally after total body irradiation prolongs survival and ameliorates intestine injury in mice.*

Shea-Donohue, Terez; Fasano, Alessio; Zhao, Aiping; Notari, Luigi; Stiltz, Jennifer; DeVito, Justin; McFarland, Emylee; Farese, Ann; Macvittie, Thomas
(MS1107) *An acute radiation syndrome (ARS) nonhuman primate (NHP) research platform: prolonged gastrointesinal (GI) dysfunction observed in NHPs surviving the acute heme and GI syndromes.*

Batinic-Haberle, Ines; Gauter-Fleckenstein, Ben; Kos, Ivan; Fleckenstein, Katharina; Spasojevic, Ivan; Vujaskovic, Zeljko
(MS1108) *MnTnHex-2-PyP5+. Structural characteristics, lipophilicity and bioavailability contribute to its high potency in pulmonary radioprotection.*

Poster Sessions

PS1. CELL/TISSUE SIGNALING-I/ RADIATION COUNTERMEASURES-I

Sunday, October 04, 2009, 1:00 pm - 2:00 pm, Atrium

Sacksteder, Colette A.; Jones, Eric; Camp II, David G.; Squier, Thomas C.
(PS1.01) *Molecular mechanism underlying cellular response to low dose radiation.*

Burrell, Cheryl G.; Ritter, Linda E.; Ortloff, Leticia S.; Grosovsky, Andrew J.; Green, Lora M.
(PS1.02) *The contribution of tissue level organization to genomic stability following low dose gamma irradiation.*

Wilson, Christy M.; Sabek, Omaima M.; Xu, Lijing; Homayouni, Ramin; Zawaski, Janice A.; Gaber, Waleed M.; Merchant, Thomas E.
(PS1.03) *A study of the difference in the gene response to single and hypofractionated doses of radiation.*

Gupta, Anshul; White, Lois; Marini, Frank; Meyn, Raymond; Klopp, Ann H.; Andreeff, Michael
(PS1.04) *Impact of Mesenchymal Stem Cells on Radiation Response.*

Cao, Yiting; Eble, Joseph M.; Yuan, Hong; Moon, Ejung; Provenzale, James M.; Rich, Jeremy N.; Dewhirst, Mark W.
(PS1.05) *Doxorubicin upregulates hypoxia-inducible factor-1 expression through stat1 / inductible nitric oxide synthase signaling pathway.*

Ding, Liang-Hao; Xie, Yang; Park, Seongmi; Minna, John D.; Story, Michael D.
(PS1.06) *Identification of gene interaction networks specific to low dose radiation using isogenic lung epithelial cells with defined oncogenic changes associated with lung cancer.*

Thompson, Karin E.; Apple, Benjamin D.; Miller, Duane D.; Yates, Charles R.
(PS1.07) *In vitro model development characterizing radiation induced cell death in a human leukocyte (U937) cell line.*

Mivechi, Nahid F.; Jin, Xiongjie; Moskophidis, Demetrius
(PS1.08) *Role of heat shock transcription factor hsf1 in p53-mediated tumorigenesis and chemical-induced hepatocellular carcinoma.*

Li, Henghong; Sun, Jiafang; Laiakis, Evagelia C.; Fornace Jr., Albert J.
(PS1.09) *Modulation of radiation responses and radiosensitivity by p38 kinase activity.*

Sen, Arindam; Capitano, Maegan L.; Dommer, Megan E.; Hylander, Bonnie L.; Singh, Anurag K.; Repasky, Elizabeth A.
(PS1.10) *Thermoregulatory response to mild systemic thermal stress increases tumor perfusion, decreases intratumoral interstitial fluid pressure and hypoxia and enhances radiation response.*

Betof, Allison S.; Jackson, Isabel L.; Hadley, Caroline C.; Dewhirst, Mark W.; Vujaskovic, Zeljko
(PS1.11) *The effects of ionizing radiation and subsequent oxidative stress on endothelial gap junctions and vascular structure in radiation-induced pulmonary toxicity.*

Kassahun, Bineyam; Bakken, Nick; Murashov, Alexander; Bier, Martin; Johnke, Roberta
(PS1.12) *The Effects of Radiation and Anesthetics on Nerve Conduction.*

Madhusoodhanan, Rakhesh; Veeraraghavan, Jamunarani; Natarajan, Mohan; Herman, Terence S.; Aravindan, Natarajan
(PS1.13) *Alteration of inflammatory molecules as a function of time after low-dose γ-radiation in mice gut and brain.*

Kozin, Sergey V.; Duda, Dan G.; Kamoun, Walid S.; Dawson, Michelle; Jain, Rakesh K.
(PS1.14) *The role of bone marrow-derived cell recruitment in tumor recurrence following local irradiation.*

Patel, Zarana S.; Grugan, Katharine D.; Rustgi, Anil K.; Cucinotta, Francis A.; Huff, Janice. L.
(PS1.15) *Irradiated fibroblasts promote migration and invasion of esophageal epithelial cells grown in two- and three-dimensional cell culture models.*

Jo, Sung-Kee; Hong, Seol-Hee; Cho, Eun-Hee; Jung, Uhee; Park, Hae-Ran
(PS1.16) *The adipocyte differentiation and fat accumulation in the γ-irradiated mice.*

Paun, Alexandra; Fox, Jessica; Dodge, Laura; Qureshi, Salman T.; Haston, Christina K.
(PS1.17) *Tlr2,4 genotype influences the radiation-induced pulmonary fibrosis phenotype in mice.*

Delisle, Adam; Tajima, Goro; O'Leary, Fionnuala; Ikeda, Kimiko; Hanschen, Marc; Lederer, James
(PS1.18) *Phenotypic changes in immune cell populations and reactivity in an outbred mouse model of radiation combined injury.*

Li, Deguan; Wang, Yueying; Wu, Hongying; Chu, Liping; Wang, Yan; Lu, Lu; Zhang, Junling; Zhang, Heng; Meng, Aimin
(PS1.19) *Observation of the vitiligo-like coat color alteration induced by total body iiradiation in IRM-2 mouse.*

Li, Deguan; Wu, Hongying; Wang, Yueying; Wang, Yong; Zhang, Junling; Chu, Liping; Lu, Lu; Meng, Aimin
(PS1.20) *Comparison of three mouse strains by radiosensitivity of hematoimmune system.*

Zhang, Mei; Zhang, Bingrong; Cao, Yongbing; Tian, Yeping; Yin, Liangjie; Zhang, Kunzhong; Yang, Shanmin; Howell, Robert; Fenton, Bruce M.; Okunieff, Paul; Zhang, Lurong
(PS1.21) *Lipopolysaccharide-induced macrophage-derived chemokine is reduced by irradiation.*

Jackson, Isabel L.; Betof, Allison; Rabbani, Zahid; Batinic-Haberle, Ines; Vujaskovic, Zeljko
(PS1.23) *NADPH oxidase activation and vascular dysfunction in normal lung tissue after radiation exposure.*

Yang, Shanmin; Cao, Yongbing; Zhang, Mei; Tian, Yeping; Yin, Liangjie; Zhang, Kunzhong; Zhang, Bingrong; Zhang, Lei; Stwarts, Steve; Okunieff, Paul; Zhang, Lurong
(PS1.24) *Knocking-down of Decoy Receptor 3 Enhances Apoptosis and Modulates Radiosensitivity.*

Nangami, Gladys N.; Bakken, Nicholas T. G.; Kilburn, Jeremy M.; Johnke, Roberta M.
(PS1.25) *Contradictory survival responses in two human tumor cell lines following very low dose irradiation.*

Tian, Jian; Pecaut, Michael J.; Slater, James M.; Gridley, Daila S.
(PS1.26) *Extracellular matrix regulators in lung tissue after exposure to low-dose photons and simulated solar particle event protons.*

Fisher, Carolyn J.; Stangenberg, Lars; Yoon, Sam S.; Kim, Yongbaek; Kirsch, David G.
(PS1.27) *Genetically engineered mouse models of sarcoma to study mechanisms of radiation therapy.*

Miller, John H.; Reitz, Nila; Stenoien, David; Morgan, William
(PS1.28) *Challenges in the interpretation of global proteomic data.*

Meyer, Sandra S.; Yaromina, Ala; Walenta, Stefan; Zips, Daniel; Baumann, Michael; Mueller-Klieser, Wolfgang
(PS1.29) *Fractionated radiotherapy induces metabolic and genomic changes in tumor xenografts.*

Gokhale, Abhay S.; Epperly, Michael W.; Glowacki, Julie; Greenberger, Joel S.
(PS1.30) *Irradiation inhibits human bone marrow stromal cell differentiation to osteoblasts in vitro.*

Sullivan, Julie M.; Jeffords, Laura B.; Santiago, Philip M.; Dayton, Talya; Kim, Yongbaek; Bronson, Roderick; Jacks, Tyler; Kirsch, David G.
(PS1.31) "*Super p53*" *mice are protected from the radiation-induced Gastrointestinal Syndrome.*

Kumar, K. Sree; Kulkarni, Shilpa; Ghosh, Sanchita P.; Romanyukha, Lyudmila; Hieber, Kevin; Toles, Raymond E.; Hauer-Jensen, Martin
(PS1.32) *Antioxidant and antinitrosative properties of γ-tocotrienol, a tocol radioprotectant.*

Krivokrysenko, Vadim; Toshkov, Ilya; Gleiberman, Anatoli; Gudkov, Andrei; Feinstein, Elena
(PS1.33) *Single injection of novel medical radiation countermeasure CBLB502 rescues non-human primates within broad time window after lethal irradiation.*

Tian, Yeping; Yang, Shanmin; Zhang, Mei; Cao, Yongbing; Zhang, Bingrong; Zhang, Lei; Yin, Liangjie; Zhang, Kunzhong; Stwarts, Steven; Okunieff, Paul; Zhang, Lurong
(PS1.34) *FGF-P facilitates cell proliferation following radiation.*

Jourdan, Megan M.; Olasz, Edit B.; Moulder, John E.; Fish, Brian L.; Mader, Marylou; Schock, Ashley; Morrow, Natalya; Semenenko, Vladimir; Doctrow, Susan R.; Lazarova, Zelmira
(PS1.35) *Mitigation of combined radiation and skin wound injury by SOD/catalase mimetic EUK-207.*

Lee, Tammy C.; Payne, Valerie; Ramanan, Sriram; Zhao, Weiling; Kooshki, Mitra; Riddle, David; Diz, Debra I.; Hsu, Fang-Chi; Robbins, Mike E.
(PS1.36) *The ACE inhibitor, ramipril, prevents fractionated whole-brain irradiation-induced cognitive impairment.*

Manning, Casey; Johnston, Carl; Hernady, Eric; Williams, Jacky P.; Finkelstein, Jacob N.
(PS1.37) *The effects of irradiation on the lung inflammatory response induced by lps inhalation.*

Kim, Jae Ho; Kolozsvary, Andrew; Jenrow, Kenneth A.; Brown, Stephen L.
(PS1.38) *Plerixafor, a CXCR4 antagonist, mitigates total body irradiation lethality in mice.*

Brown, Stephen L.; Ewing, James R.; Jenrow, Kenneth A.; Kar, Santosh K.; Jae Ho Kim
(PS1.39) *Lipitor mitigates whole brain radiation injury observed by contrast enhanced MRI.*

Molthen, Robert C.; Wu, Qingping; Ghosh, Swarajit N.; Jacobs, Elizabeth R.; Moulder, John E.; Fish, Brian L.; Medhora, Meetha M.
(PS1.40) *Pulmonary vascular injury in a rat model of single fraction total body irradiation.*

Cao, Yongbing; Yang, Shanmin; Tian, Yeping; Zhang, Mei; Zhang, Lei; Yin, Liangjie; Zhang, Kunzhong; Zhang, Bingrong; Swarts, Steven; Okunieff, Paul; Zhang, Lurong
(PS1.41) *Mitigation effect of esculentic acid on radiation-induced pneumonia and pulmonary fibrosis.*

Medhora, Meetha; Ghosh, Swarajit N.; Fish, Brian L.; Bodiga, Sreedhar; Tomic, Rade; Kumar, Gagan; Morrow, Natalya V.; Moulder, John E.; Jacobs, Elizabeth R.; Szabo, Sara
(PS1.42) *Cellular Inflammatory Infiltrate in Pneumonitis Induced by a Single Moderate Dose of Thoracic X-Irradiation in Rats.*

Domann, Frederick E.; Fitzgerald, Matthew P.; Madsen, Joshua M.; Westphal, Scott G.; Coleman, Mitchell C.; Spitz, Douglas R.
(PS1.43) *Establishment of the trypanothione biosynthetic pathway in human cells: Implications for protection against radiation and oxidative stress.*

Williams, Jacky P.; Johnston, Carl J.; Hernady, Eric; Miller, Jen-nie; Zimmerman, Cathy; Finkelstein, Jacob N.
(PS1.44) *Mitigating lung late effects: Development of murine test models and agent assessment.*

Fabre, Kristin M.; DeGraff, William; Gamson, Janet; Sowers, Anastasia; Thetford, Angela; Cook, John A.; Mitchell, James B.
(PS1.45) *Evaluation of resveratrol as an antioxidant and radiation protector.*

Plett, Artur; Sampson, Carol; West, Evan; Nguyen, Ngoc-Thinh; Hui Lin Chua; Farese, Ann; Parker, Jeff; Juliar, Beth; Katz, Barry; MacVittie, Thomas; Orschell, Christie M.
(PS1.46) *Morbidity and mortality of lethally irradiated mice undergoing periodic blood sampling.*

Cui, Li; Berbée, Maaike; Fu, Qiang; Boerma, Marjan; Wang, Junru; K. Sree Kumar; Hauer-Jensen, Martin
(PS1.47) *Exogenous administration of tetrahydrobiopterin (BH4) ameliorates DNA and lipid oxidative damage in mice after total body irradiation.*

Garg, Sarita; Boerma, Marjan; Wang, Junru; Fu, Qiang; Loose, David S.; K Sree Kumar; Hauer-Jensen, Martin
(PS1.48) *Sequential changes in intestinal mucosal immune cell populations in response to sublethal total body irradiation.*

Jiao, Wan; Cary, Lynnette H.; Elliott, Thomas B.; Pellmar, Terry C.; G. David Ledney; Kiang, Juliann G.
(PS1.49) *COX-2 inhibitors are contraindicated for combined injury therapy:mechanistic studies.*

Kovalenko, Olga A.; Yang, Zhi; Li, Min; Khorshidi, Manoochehr; Azzam, Edouard I.; Ende, Norman
(PS1.50) *Human cord blood and antibiotic effect on the intestinal tract and survival of lethally irradiated mice: possible use for mass casualties.*

Wang, Junru; Kulkarni, Ashwini; Garg, Sarita; Hauer-Jensen, Martin
(PS1.51) *Protection from intestinal radiation injury by calcitonin gene-related peptide in sensory nerve ablated rats.*

Xiang Hong Li; Latif, Nabil; Fu, Dadin; Satymitra, Merriline; Srinivasan, Venkataraman; Xiao, Mang
(PS1.52) *Delta-tocotrienol promotes survival of gamma-irradiated human hematopoietic progenitors through Erk / mTOR signaling.*

Choi, Seo-Hyun; Seo, Woo-Duck; Lee, Hae-June; Lee, Minyoung; Lee, Yun-Sil
(PS1.53) *Zerumbone induces hsp27 oligomerization and inhibits hsp27-mediated resistance to radiation or heat shock.*

Gubrij, Igor B.; Boerma, Marjan; Fu, Qiang; Wang, Junru; Hauer-Jensen, Martin; Burnett, Alexander F.
(PS1.54) *Human recombinant IL-11 administered orally after total body irradiation prolongs survival and ameliorates intestine injury in mice.*

Grace, Marcy B.; Prasher, Joanna M.; Moyer, Brian R.; Boston, Donna; Wallace, Rodney L.; DiCarlo-Cohen, Andrea; Ramakrishnan, Narayani; Hatchett, Richard J.; Macaluso, Anthony; Manning, Ronald G.
(PS1.55) *Biodosimetry as an HHS priority for radiological public health emergencies: roles of NIAID and BARDA.*

Ossetrova, Natalia I.; Farese, Ann M.; MacVittie, Thomas J.; Cohen, Melanie; Rahman, Arifur; Sandgren, David J.; Gallego, Sergio; Blakely, William F.
(PS1.56) *Early-phase and organ-specific protein biomarkers for radiation dose and injury assessment.*

Kiang, Juliann G.
(PS1.57) *Geldanamycin analog 17-DMAG confers radioprotection by inhibiting iNOS-mediated apoptosis and autophagy.*

Singh, Vijay K.; Brown, Darren S.; Fatanmi, Oluseyi O.; Parekh, Vaishali I.; Gille, Daphne A.; Whitnall, Mark H.; Christensen, Julie L.
(PS1.58) *Myeloid progenitor cells as an effective treatment for acute radiation syndrome.*

PS2. HIGH LET/SPACE PHYSICO-CHEMICAL EVENTS

Sunday, October 04, 2009, 2:00 pm - 3:00 pm, Atrium

Mukherjee, Bipasha; Camacho, Cristel; McEllin, Brian; Tomimatsu, Nozomi; Ding, Liang-Hao; Story, Michael; Saha, Debabrata; Bachoo, Robert; Burma, Sandeep
(PS2.01) *Molecular and cellular effects of hze particles and their modulation by shielding.*

Park, Seongmi; Ding, Lianghao; Xie, Yang; Peyton, Michael; Minna, John; Story, Michael D.
(PS2.02) *Differences in survival, gene expression and cellular transformation in isogenic variants of human bronchial epithelial cells after low LET or HZE particle exposures.*

Blakely, Eleanor A.; Bjornstad, Kathleen A.; Rosen, Chris J.; Bunin, Deborah; Moncaster, Juliet A.; Goldstein, Lee E.; Chang, Polly Y.
(PS2.03) *CD44 gene expression in rat lenses in vivo nine months after low-dose particle radiation.*

Girdhani, Swati; Hahnfeldt, Philip; Beheshti, Afshin; Lamont, Clare; Anaya, Zachary; Peluso, Michael; Schwager, Christian; Enderling, Heiko; Huber, Peter; Abdollahi, Amir; Hlatky, Lynn
(PS2.04) *Antiangiogenic effects of proton irradiation.*

Woloschak, Gayle; Alcantara, Marissa; Mittal, Amit; Haley, Benjamin; Paunesku, David; Paunesku, Tatjana
(PS2.05) *Tissue and database archives on dog and mouse, gamma-ray and neutron, acute and protracted whole body irradiation experiments.*

Li, Min; Shim, Grace; Sonia de Toledo; Pain, Debkumar; Azzam, Edouard
(PS2.06) *In vivo effects of low dose ionizing radiation on mitochondrial functions.*

Datta, Kamal; Doiron, Kathryn; Kallakury, Bhaskar; Cole, Michael; Fornace Jr., Albert J.
(PS2.07) *Heavy ion radiation induces accelerated hematopoetic toxicity: Implications for space exploration and radiotherapy.*

Khaled, Saman F.; Gupta, Kiran; Wu, Xing; Yu, Tao; Chang, Polly; Kucik, Dennis F.
(PS2.08) *Monocytic adhesion to human aortic endothelium depends on dose, quality, and time after irradiation.*

Peschke, Peter; Karger, Christian P.; Scholz, Michael; Elsaesser, Thilo; Debus, Juergen; Huber, Peter
(PS2.09) *Response of an experimental prostate tumor to single and split doses of photons and carbon ions.*

Chabriol-Raulli, Anne-Olivia; Sanford, Larry; Singletary-Britten, Sylvia; Britten, Richard
(PS2.10) *Exposure to HZE irradiation perturbs sleep patterns in Wistar rats.*

Groesser, Torsten; Chang, Hang; Fontenay, Gerald; Parvin, Bahram; Mary Helen Barcellos-Hoff; Rydberg, Bjorn
(PS2.11) *Persistence of gamma-H2AX and 53BP1 foci in proliferating and non-proliferating human mammary epithelial cells after exposure to gamma rays or Fe ions.*

Baqai, Farnaz P.; Gridley, Daila S.; Bayeta, Erben; Andres, Melba; Makinde, Adeola; Luo-Owen, Xian; Rizvi, Asma; Rightnar, Steve; Pecaut, Michael J.
(PS2.12) *Effects of whole-body proton radiation on immune response to E.coli.*

Goetz, Wilfried; Baulch, Janet E.
(PS2.13) *Effects of high and low LET radiation exposure on DNA methylation.*

Sanchez, Martha C.; Bianski, Brandon M.; Ortloff, Leticia S.; Green, Lora M.
(PS2.14) *Proton and HZE particle radiation affect glutamate function in various neural cellular phenotypes.*

Sharp, John G.; Jackson, John D.; O'Kane, Barbara J.; Brusnahan, Susan K.; McGuire, Timothy R.
(PS2.15) *Effects of locoregional radiation therapy on bone and bone marrow in a mouse model.*

Plante, Ianik; Cucinotta, Francis A.
(PS2.16) *Simulation of TGF-beta activation by low-dose HZE radiation in a cell culture.*

M. Kerry O'Banion; Hurley, Sean D.; Olschowka, John A.; Williams, Jacqueline
(PS2.17) *Low dose ionizing radiation and HZE particle effects on adult hippocampal neurogenesis.*

Saturday October 3, 2009	Sunday October 4, 2009	ROOM	Monday October 5, 2009	ROOM
SIT WORKSHOP	**8:00am - 8:50am Topical Reviews**		**8:00am - 8:50am Topical Reviews**	
	TR1•Clustered DNA damage Evelyne Sage	Ogle	TR5•Branching out: Radiation and medical physics for biologists and chemists Jay Burmeister	D
	TR2•Proton and ion therapy Giesela Taucher-Scholz	E	TR6•Health effects in irradiated populations Amy Berrington	Ogle
	TR3•Radiogenomics and prediction of normal tissue response Jan Alsner	D	TR7•Tumor profiling and radiation response Catharine West	A/B
	TR4•Smart drugs and radiation: Signal transduction pathways Eric Bernhard	C	TR8•Redox regulation of the cell cycle Prabhat Goswami	E
	9:00am - 10:00am Plenary Lecture		**9:00am - 10:00am Plenary Lecture**	
	P1•Patricia Steeg Tumor metastasis Introduction by Kathy Held	A/B	P2•Joseph Nevins Genomic profiling and clinical decisions Introduction by Mark Dewhirst	A/B
	10:00-10:15am Coffee Break		**10:00-10:15am Coffee Break**	
	10:15am - 12:00pm Symposia/Workshops		**10:15am - 12:00pm**	
	S1•Complex DNA damage: From theory to biological consequences Lynn Harrison and Aroumougame Asaithamby	D	S7•Low energy electrons: From theory to experiment Michael Sevilla and Michael Huels	Fors
	S2•Headlines or gossip: Communication between tissues and immune cells Sandra Demaria and Jacky Williams	C	S8•Non-targeted effects: From animals to the clinic Tom Hei and Edouard Azzam	A/B
			S9•SNM-RRS Joint symposium: Imaging vasculature, blood flow and angiogenesis David Murray and Robert Atcher	Ogle
	S3•Radiation risk assessment and epidemiology Marilyn Stovall and Noelle Metting	Ogle	MS4•Experimental therapeutics	D
	MS1•Mutagenesis, clastogenesis, and carcinogenesis	E	MS5•Responses of cells to DNA damage	E
	12:00pm - 1:00pm Lunch Break		**12:00pm - 1:30pm Lunch Break SIT Luncheon**	
	1:00pm - 2:00pm Poster Session		**1:30pm - 2:15pm Poster Session**	
	PS1•Cell/tissue signaling - I Radiation countermeasures - I		PS3•DNA damage, repair and response - I Epidemiology Stem cells	
	2:00pm - 3:00pm Poster Session		**2:15pm - 3:00pm Poster Session**	
	PS2•High LET/space Physico-chemical events		PS4•Cell/tissue signaling - II Radiation countermeasures - II	
	3:00pm - 4:45pm Symposia/Workshops		**3:00pm - 4:45pm Symposia/Workshops**	
	S4• Real-time biochemistry in the cell Peter O'Neill and Sylvain Costes	A/B	S10•Insights into the mechanisms of molecular product formation Jean Cadet and Amitava Adhikary	Ogle
	S5•Radiation cytogenetics: Then and now Susan Bailey and Joel Bedford	E	S11•Radiation response of cancer stem cells Kevin Prise and Daohong Zhou	A/B
	S6•STM-RRS Joint symposium: Temperature Matters! New Research Directions from the Society for Thermal Medicine Betsy Repasky and David Needham	Ogle		
	MS2•Damage to DNA and its constituents and DNA damage clustering	C	MS6•Biodosimetry and biomarkers	D
	MS3•Cell signaling and tumor microenvironment	D	MS7•High LET and space radiation	E
	4:45-5:00pm Break		**4:45-5:00pm Break**	
	5:00pm - 6:00pm Failla Lecture		**5:00pm - 5:25pm Michael Fry Research Award**	
	Richard Hill Introduction by Peter Corry	A/B	Joanne Weidhaas Introduction by Peter Corry	A/B
			5:25pm - 5:45pm Marie Curie Award	
	6:30pm-8:30pm Failla and Welcoming Reception Savannah River Queen Riverboat		Jie Zhang Introduction by Peter Corry	A/B
6:00-9:00pm SIT Reception			Awards mixer immediately following Morris Center, Trustees' Garden	

Tuesday October 6, 2009	ROOM
8:00am - 8:50am Topical Reviews	
TR9•Track structure for the 21st century Michael Dingfelder	Ogle
TR10•ROS and therapeutic responses in cancer Douglas Spitz	D
TR11•Radiation-induced cardiomyopathy Marjan Boerma	E
TR12•Radiotherapy, the tumor microenvironment and patient prognosis Michael Milosevic	C
9:00am - 10:00am SIT Plenary Lecture: What's Hot?	
P3•Robert Floyd Free Radicals in Biomedical Problems-Lessons Learned from Studying Nitrones Introduction by Jeff Willey	A/B
10:15am - 12:00 noon Presidential Symposium	
S12• Presidential Symposium Chair: Peter Corry Abscopal effects Olga Kovulchuk Anna Saran Silvia Formenti Peter Corry	A/B
12:00pm - 1:30pm Business Meeting & Luncheon	
Business Meeting & Luncheon	A/B
1:30pm - 2:30pm Poster Session	
PS5•Bystander and adaptive responses Experimental therapeutics - I	
2:30pm - 4:15pm Symposia/Workshops	
S13•Water radiolysis with heavy ions Simon Pimblott and Jacob Gersh	Ogle
S14•Novel mitigators against radiation-induced normal tissue damage Meetha Medhora and Martin Hauer-Jensen	A/B
S15•DNA damage response and human disease Howard Lieberman and Henning Willers	C
MS8•Bystander and adaptive responses	D
MS9•Stem cells	E
4:30pm - 6:30pm Poster Sessions with Reception	
4:30pm - 5.30pm PS6•DNA damage, repair and response - II Radiation countermeasures - III	
5:30pm-6:30pm PS7•Experimental therapeutics - II Mutagenesis, clastogenesis, carcinogenesis	

Wednesday October 7, 2009	ROOM
8:00am - 8:50am Topical Reviews	
TR13•Branching out: Radiation chemistry for bioloigsts and physicians Amanda Bryant-Friedrich	Ogle
TR14•Stem cells and genomic instability Eric Wright	C
TR15•QUANTEC guidelines for normal tissue tolerance Larry Marks and John Kirkpatrick	D
TR16•Smart drugs and radiation: DNA repair pathways and PARP inhibitors Anthony Chalmers	E
9:00am - 10:00am Plenary Lecture	
P4•John Boice Radiation epidemiology Introduction by Amy Kronenberg	A/B
10:00-10:15am Coffee Break	
10:15am - 12:00pm Symposia/Workshops	
WS1•Influence of proteins on DNA damage Jamie Milligan and Bill Bernhard	Fors
S16•Space radiation effects Greg Nelson and Ted Bateman	D
S17• Stress responses in stem cells Charlie Limoli and John Fike	E
MS10•Low dose radiation and risk assessment	Ogle
MS11•Radiation protectors, mitigators and treatment	C
12:00pm END OF MEETING	

Registration - Savannah Ballroom Foyer

SIT Early Registration:
Saturday: 7:00am-11:00am
Early Registration: Saturday: 3:00-7:00pm
Sunday: 7:00 am-5:30pm
Monday 7:00am-5:30pm
Tuesday: 7:00am-5:00pm
Wednesday: 7:00am-Noon

Meeting Rooms
A/B - Savannah Ballroom A & B
C - Savannah Ballroom C
D - Savannah Ballroom D
E - Savannah Ballroom E
Ogle - Oglethorpe AB (2nd floor)
Fors - Forsyth (2nd floor)

Posters in Atrium, Mezzanine and Plaza Room

Session Types
P - Plenary Lecture
S - Symposium
WS - Workshop
MS - Mini Symposium
TR- Topical Review
PS - Poster Session

Trani, Daniela; Sun, Jiafang; Li, Henghong; Laiakis, Evagelia C.; Fornace Jr., Albert J.
(PS2.18) *The role of intestinal inflammation in acute effects induced by exposure to protons during solar particle events (spes):a mouse model approach.*

Chang, Polly Y.; Doppalapudi, Rupa; Bakke, James; Wang, Abraham; Menda, Sean; Davis, Zoe
(PS2.19) *Impact of low dose-rate solar particle event radiation in vivo.*

Autsavapromporn, Narongchai; Sonia M. de Toledo; Buonanno, Manuela; Jay-Gerin, Jean-Paul; Azzam, Edouard I.
(PS2.20) *The role of intercellular communication in cell killing and repair of potentially lethal damage in human cells exposed to energetic protons, γ-rays, α-particles or HZE particles.*

Becker, David; Khanduri, Deepti; Sevilla, Michael D.
(PS2.21) *Radiation chemical track structure and radical formation in krypton ion-beam irradiated DNA: ESR investigations.*

Chen, Benjamin P.; DeCarolis, Nathan A.; Ahn, Haram; Melvin, Neal; Eisch, Amelia
(PS2.22) *Impact of 56Fe particle irradiation on adult neural stem cells in vivo.*

Bowman, Laura C.; Livingston, Eric W.; Willey, Jeffrey S.; Robbins, Mike E.; Bourland, J. D.; Bateman, Ted A.
(PS2.23) *Characterization of a murine model for radiation-induced bone loss.*

Wang, Hongyan; Yu, Xiaoyan; Wang, Ya
(PS2.24) *A small peptide protects cells from high LET radiation induced damage.*

Hada, Megumi; Huff, Janice L.; Patel, Zarana S.; Pluth, Janice M.; George, Kerry A.; Cucinotta, Francis A.
(PS2.25) *Analysis of chromosomal aberrations after low and high dose rate gamma irradiation in ATM or NBS suppressed human fibroblast cells.*

Rabin, Bernard M.; Carrihill-Knoll, Kirsty; Joseph, James A.; Shukitt-Hale, Barbara
(PS2.26) *Effects of exposure to HZE particles on habituation of the acoustic startle response.*

Green-Mitchell, Shamina M.; Johnson, Angela M.; Keeney, Sonia; Singletary-Britten, Sylvia J.; Drake, Richard R.; Britten, Richard A.
(PS2.27) *Identification of hippocampal site specific proteomic changes that are associated with neurocognitive impairment induced by HZE particles.*

Tian, Jian; Pecaut, Michael J.; Slater, James M.; Gridley, Daila S.
(PS2.28) *Spaceflight Modulates Expression of Extracellular Matrix, Adhesion and Pro-fibrotic Molecules in Mouse Lung.*

Mao, Xiao Wen; Favre, Cecile; Jones, Tami; Campbell-Beacher, Mary; Rightnar, Steve; Kubinova, Lucie; Nelson, Greg
(PS2.29) *Stereological quantification of proton radiation-induced response of microvessels in the hippocampus.*

Kennedy, Ann R.; Cengel, Keith; Kao, Gary; Weissman, Drew; McDonough, James; Avery, Stephen; Gewirtz, Alan; King, Gregory; Wagner, Erika; Freund, Gregory; Vazquez, Marcelo
(PS2.30) *Acute biological effects resulting from solar particle event radiation.*

Stisova, Viktorie; Abele, William H.; Bennett, Paula V.; Sutherland, Betsy M.
(PS2.31) *Response of primary human cells exposed to solar particle event protons.*

Chauhan, Vinita; O'Hara, Shifawn; Howland, Matthew; Qutob, Sami; Malowany, Morie; Williams, Andrew; McNamee, James; Stocki, Trevor; Beaton, Lindsay; Wilkins, Ruth
(PS2.32) *Effects of alpha particle exposure on gene expression in human pulmonary epithelial cells (A549).*

Chauhan, Vinita; Howland, Matthew; O'Hara, Shifawn; Kutzner, Barbara C.; Ferrarotto, Catherine; McNamee, James P.; Bellier, Pascale V.; Stocki, Trevor J.; Beaton, Lindsay A.; Wilkins, Ruth C.
(PS2.33) *The effects of alpha radiation on DNA damage and chemokine secretion in human monocytic cells.*

George, Kerry A.; Hada, Megumi; Patel, Zarana; Huff, Janice; Pluth, Janice M.; Cucinotta, Francis A.
(PS2.34) *Chromosome aberrations in DNA repair-defective cell lines: comparisons of dose rate and radiation quality.*

Lumpkins, Sarah; Yang, Hongying; Magpayo, Nicole; Held, Kathryn D.
(PS2.35) *Characterization of space radiation-induced bystander signaling between mixed cultures of human fibroblasts and keratinocytes.*

Gupta, Seema; Shareef, Mohammed M.; Pang, Manhui; Wasserlauf, Bernard J.; Rodriguez-Gonzalez, Maria A.; Wu, Xiaodong; Singh, Vijay K.; Troen, Bruce R.; Ahmed, Mansoor
(PS2.36) *Spaceflight-relevant radiation induces cytokine secretion, enhances osteoclastogenesis and promotes carcinogenicity.*

Girdhani, Swati; Lamont, Clare; Beheshti, Afshin; Anaya, Zachary; Peluso, Michael; Szelag, Heather; Abdollahi, Amir; Hahnfeldt, Philip; Hlatky, Lynn
(PS2.37) *Modulation of Intercellular interactions by Iron Radiation: Implications for Progression Phase Determination of Carcinogenesis Risk.*

Howell, Roger W.; Neti, Prasad V.
(PS2.38) *Modeling biological response to log normal distributions of cellular radioactivity.*

Lyulko, Oleksandra V.; Randers-Pehrson, Gerhard; Brenner, David J.
(PS2.39) *Approaches to cellular imaging without stain in an epi-illumination geometry.*

Houde, Daniel; Meesat, Ridthee; Allard, Jean-Francois; Wagner, Richard J.; Jay-Gerin, Jean-Paul; Tremblay, Luc; Lepage, Martin
(PS2.40) *Fricke and polymer gel dosimetry of femtosecond laser pulse filamentation and radiation chemical effects of laser irradiation on thymidine solution. Comparison with 60Co irradiation.*

Wolf, Frank; Li, Wenrong; Li, Chuan-Yuan
(PS2.41) *Hyperthermia induces strong activation of the EGFR pathway.*

Jayatilaka, Nayana K.; Nelson, William H.
(PS2.42) *Ionization-initiated radical reaction processes: A computational description of proton transfers in x-irradiated guanine systems.*

Peoples, Anita R.; Bernhard, William
(PS2.43) *Influence of peptide/protein binding on the formation of direct-type damage in DNA.*

Coon, Alan B.; Chu, James; Sun, J. G.; Bernard, Damion; Yao, Rui; Templeton, Alistair; Griem, Katherine L.
(PS2.44) *Three dimensional effusivity measurements predict severe radiation skin reactions.*

Abdallah, Buthina; Bryant-Friedrich, Amanda C.
(PS2.45) *Independent generation of DNA radicals resulting from low-energy electrons.*

Li, Zejun; Cloutier, Pierre; Sanche, Léon; Wagner, J. Richard
(PS2.46) *Low energy electron induced DNA damage: effect of different base substitutions in oligomer trimers.*

Ptasinska, Sylwia; Stypczynska, Agnieszka; Bahnev, Blagovest; Bowden, Mark; Braithwaite, Nicholas S. J.; Mason, Nigel J.
(PS2.47) *The effect of a non-thermal atmospheric pressure plasma jet on plasmid DNA.*

Vall-llosera, Gemma; Lacombe, Sandrine; Panajotovic, Radmila; Ptasinska, Sylwia; Sarabipour, Sarvenaz; Hennies, Franz; Rachlew, Elisabeth; Huels, Michael A.
(PS2.48) *The morphology and degradation of adenine films.*

Kumar, Anil; Sevilla, Michael D.
(PS2.49) *Proton transfer in hydrogen-bonded Guanine-Cytosine nucleoside radical cation [dG•+-dC] base pair in excited states: A time-dependent density functional theory study.*

Khanduri, Deepti; Adhikary, Amitava; Kumar, Anil; Sevilla, Michael D.
(PS2.50) *Direct experimental observation of the protonation state and hole localization site in DNA-oligomers: An ESR and DFT study.*

Milosavljevic, Bratoljub H.; Krise, Keith M.

(PS2.51) *Radiation-induced decomposition of gel structure of thick fraction of hen egg white.*

Adhikary, Amitava; Khanduri, Deepti; Sevilla, Michael D.

(PS2.52) *Photo-excitation of one-electron oxidized ds dna-oligomers with adenine stacks: evidence for photo-induced base-to-base and base-to-sugar hole transfer.*

Vall-llosera, Gemma; Sankari, Rami; Sarabipour, Sarvenaz; Rachlew, Elisabeth; Kukk, Edwin; Huels, Michael A.

(PS2.53) *Radiation damage to genetic sugars: why nature chose DNA.*

Travia, Anderson; Dingfelder, Michael

(PS2.54) *Simulation of secondary electron yields from thin metal foils after fast proton impact.*

Jorjishvili, Irakli G.; Dingfelder, Michael; Toburen, Larry H.

(PS2.55) *Dielectric and optical properties, mean excitation energy, generalized oscillator strength for metallic calcium.*

Sanche, Leon

(PS2.56) *Measurement of DNA damage induced by low energy (0–30 eV) electrons under atmospheric conditions.*

Black, Paul J.; Bernhard, William

(PS2.57) *A new technique for studying radiation induced strand breaks in DNA: tunable filtration of DNA oligomers through nanoporous silicon membranes.*

Sharma, Kiran K. K.; Bernhard, William A.

(PS2.58) *Direct damage to the backbone of DNA oligomers is influenced by the OH function at strand ends, by the type of base, and by the base context.*

Watson, Richard M.; Bernhard, William A.

(PS2.59) *A novel analytical technique for analyzing nucleobase influence on DNA strand breaks caused by direct ionizing radiation.*

Razskazovskiy, Yuriy

(PS2.60) *Carbonate radical anion as a DNA damaging species: the sugar-to-base oxidation ratio.*

PS3. DNA DAMAGE, REPAIR AND RESPONSE-I/ EPIDEMIOLOGY STEM CELLS

Monday, October 05, 2009, 1:30 pm - 2:15 pm, Mezzanine

Hayashi, Tomonori; Ohishi, Waka; Morishita, Yukari; Maki, Mayumi; Sasaki, Keiko; Nagamura, Hiroko; Imai, Kazue; Yoshida, Kengo; Fujiwara, Saeko; Kusunoki, Yoichiro; Nakachi, Kei

(PS3.01) *Effects of IL-10 gene polymorphisms and atomic-bomb radiation exposure on risks of stomach and liver cancers.*

Soo Yong Choi; So Hee Suh; Tae Hwan Kim; Won Chul Choi
(PS3.02) *Investigations and assessments for occupational exposures of radiation workers in Korea.*

Lane, Rachel; Frost, Stanley; Zablotska, Lydia
(PS3.03) *An update of mortality (1950–1999) in the cohort of Eldorado uranium miners.*

Zablotska, Lydia; Lane, Rachel; Frost, Stanley
(PS3.04) *First analysis of cancer incidence in the cohort of Eldorado uranium miners (1969–1999) and comparison with the results of the mortality analysis.*

Yu, Yongjia; Dunn, Tiffany; Wu, Ping
(PS3.05) *Interaction between neural stem cells and astroglial cells following irradiation.*

Krueger, Sarah A.; McGonagle, Michele; Kovalchuk, Olga; Martinez, Alvaro; Wilson, George D.; Marples, Brian
(PS3.06) *Cellular damage and repair in hematopoietic stem cells from whole-body low-dose X-irradiated mice.*

Ford, Eric; Achanta, Pragathi; Kleinberg, Lawrence; Reyes, Juvenal; Armour, Elwood; Quinones-Hinojosa, Alfredo
(PS3.07) *Neural Progenitor Cells in the Adult Brain: Ablation with Localized Radiation.*

Dittfeld, Claudia; Dietrich, Antje; Peickert, Susann; Grade, Marian; Ried, Thomas; Kunz-Schughart, Leoni A.
(PS3.08) *Is CD133 expression in colorectal cancer lines selective for a tumor-initiating or radioresistant cell population?*

Fortunel, Nicolas O.; Cadio, Emmanuelle; Vaigot, Pierre; Moratille, Sandra; Baulande, Sylvain; Ricoul, Michèle; Sabatier, Laure; Martin, Michèle T.
(PS3.09) *New mechanisms of keratinocyte carcinogenesis identified in stem cells and progenitor cells by a single-cell approach.*

Duru, Nadire; Candas, Demet; Fan, Ming; Jian Jian Li
(PS3.10) *Nf-kappa-b-mediated her-2 overexpression in radioresistant breast cancer stem cells.*

Al-assar, Osama; Muschel, Ruth J.; Mantoni, Tine; W. Gillies Mckenna; Brunner, Thomas B.
(PS3.11) *Lack of radioresistance advantage for cells isolated using stem cell markers from different cell lines except the MDA-MB231 breast cancer cell line.*

Obenaus, Andre; Ashwal, Stephan; Snyder, Evan; Napoli, Eleonora; Kosmacek, Elizabeth A.; Mackey, Michael A.; Ianzini, Fiorenza
(PS3.12) *Alterations in neural stem cells following ionizing radiation exposures: functional magnetic resonance imaging and live cell imaging studies.*

Lange, Christopher S.; Jie, Shy'Ann; Groysman, Anna; Kaity Sanz Melo; Rineer, Justin; Etwaru, Davina; Lennox, Alison; Savir, Guy; Djordjevic, Bozidar; Abulafia, Ovadia; Rotman, Marvin
(PS3.13) *A quantitative assay for cancer stem cell sensitivity to treatment modalities and prediction of individual patient outcomes.*

Pazhanisamy, Senthil Kumar; An, Ningfei; Wang, Yong; Zhou, Daohong
(PS3.14) *Stimulation of cell cycling enhances DNA damage repair function in hematopoietic stem cells.*

Wang, Yong; Liu, Lingbo; Pazhanisamy, Senthil K.; Meng, Aimin; Zhou, Daohong
(PS3.15) *Total body irradiation induces persistent oxidative stress selectively in murine hematopoietic stem cells.*

Haagen, Julia; Noack, Ruth; Schmidt, Margret; Siegemund, Annett; Doerr, Wolfgang
(PS3.16) *Amelioration of radiation-induced oral mucositis (mouse) by administration of mesenchymal stem cells.*

Lee, Chang-Lung; Kim, Yongbaek; Jeffords, Laura B.; Lowe, Scott W.; Kirsch, David G.
(PS3.17) *Genetic dissection of the timing and role of p53 in radiation-induced late effects.*

Kato, Takamitsu A.; Fujimori, Akira; Okayasu, Ryuichi
(PS3.18) *Influence of track directions on the biological consequences in cells irradiated with high LET heavy ions.*

Yasui, Linda S.; Kroc, Tom; Andorf, Christine; Lennox, Arlene
(PS3.19) *Fast neutron induction of γH2AX foci and autophagy in glioblastoma multiforme cells.*

Asis, Angelica F.; Boreham, Douglas R.
(PS3.20) *Using spectral karyotping to identify chromosomal aberrations following both diagnostic radiation exposures and the induction of an adaptive response oberved at subsequent high gamma radiation doses.*

Pandita, Tej K.; GUPTA, ARUN
(PS3.21) *Cell cycle checkpoint defects contribute to genomic instability in PTEN deficient cells independent of DNA repair.*

Verduzco, Daniel; Amatruda, James F.
(PS3.22) *A mutation in zebrafish cdc25a induces a G2/M DNA damage checkpoint response.*

Lu, Huiming; Gao, Guanjun; Zu, Guangzhi; Fan, Lu; Yin, Longfei; Shen, Binghui; Hua, Yuejin
(PS3.23) *Deinococcus radiodurans PprI Switches on DNA Damage Response and Cellular Survival Networks after Radiation Damage.*

Dregalla, Ryan C.; Zhou, Junqing; Idate, Rupa; Askin, Kristin; Liber, Howard; Bailey, Susan
(PS3.24) *Characterizing the molecular interaction between the repair protein DNA-PKcs and the telomeric PARP family tankyrase1 in maintaining genomic stability.*

Taucher-Scholz, Gisela; Splinter, Joern; Jakob, Burkhard; Tobias, Frank; Averbeck, Nicole; Meyer, Barbara; Durante, Marco
(PS3.25) *DNA double-strand break dynamics on radiation tracks in the context of chromatin.*

An, Ningfei; Pazhanisamy, Senthil K.; Zhou, Daohong
(PS3.26) *The non homologous end-joining (NHEJ) pathway is dispensable for the functional recovery of hematopoietic stem cells and progenitor cells after ionizing radiation injury.*

Willers, Henning; Li, Li; Fournier, Loreen; Borgmann, Kerstin; Dahm-Daphi, Jochen; Kachnic, Lisa A.
(PS3.27) *A novel role of FANCD2 in mediating cellular resistance to topoisomerase II poisons.*

Leloup, Corinne; Xiang Yuan Wang; Hopkins, Kevin M.; Zhu, Aiping; Wolgemuth, Debra J.; Lieberman, Howard B.
(PS3.28) *Mrad9B is important for the cellular response to DNA damage and essential for embryogenesis.*

Leyma De Haro; Wray, Justin; Williamson, Elizabeth; Corwin, Lori K.; Durant, Stephen; Hromas, Robert; Nickoloff, Jac A.
(PS3.29) *Metnase promotes restart of stalled or collapsed DNA replication forks.*

Martin, Lynn; Marples, Brian; Coffey, Mary; Lawler, Mark; Hollywood, Donal; Marignol, Laure
(PS3.30) *Processing of O6MEG lesions by the mismatch repair system may represent a novel mechanism for low-dose radiation hypersensitivity.*

Luo-Owen, Xian; Andres, Melba L.; Harding, Gordon P.; Moyers, Michael F.; Slater, James M.; Gridley, Daila S.
(PS3.31) *Responses of human lung epithelial and V79 cells after proton irradiation within bragg curve.*

Phan, Nghi; Boreham, Douglas R.
(PS3.32) *Biological effects of single and repeated diagnostic CT scans.*

Almasan, Alex; Singh, Kamini
(PS3.33) *Autophagy as a determinant of the therapeutic response in prostate cancer tumor cells.*

Zheng, Yi; Sanche, Leon
(PS3.34) *The effect of salt concentration on cisplatin-enhanced DNA damage induced by high and low energy electrons.*

Nikjoo, Hooshang; Girard, Peter

(PS3.35) *Towards a computer model of cell nucleus - a tool for the investigation of radiation induced DNA damage by ionizing radiations.*

Lindquist, Kirstin E.; Seipp, Robyn P.; Kyle, Alastair H.; Noda, Misa; Woodward, Melissa L.; Minchinton, Andrew I.

(PS3.36) *Sensitization of hypoxic cells to ionizing radiation by inhibiting DNA double strand break repair.*

Hua, Yuejin; Lu, Huiming; Gao, Guanjun; Xu, Guangzhi; Shen, Binghui

(PS3.37) *Deinococcus radiodurans PprI Switches on DNA Damage Response and Cellular Survival Networks after Radiation Damage.*

Keqin Ren Ren; Cho, Jaeho; Das, Amit K.; Chen, Benjamin P.; Minna, John D.; Chen, David J.; Nirodi, Chaitanya S.

(PS3.38) *DNA repair deficits and radiosensitivity associated with somatic activating mutations of EGFR in non small cell lung carcinoma.*

Seo, Haeng Ran; Lee, Yun-Sil; Jong In Yook

(PS3.39) *Decreased DNA-PKcs activity by interaction with Snail1.*

Surdutovich, Eugene

(PS3.40) *Multiscale approach to the physics of ion-beam cancer therapy.*

Pouget, Jean-Pierre; Piron, Béréngère; Boutaleb, Samir; Bascoul-Mollevi, Caroline; Bardiès, Manuel; Kotzki, Pierre-Olivier; Pèlegrin, Monique; Pèlegrin, André

(PS3.41) *DNA damage and involvement of p53 in the response of tumor cells to radioimmunotherapy using 125I-labeled monoclonal antibodies.*

Reynolds, Pamela; Anderson, Jennifer; Hill, Mark; Harper, Jane; Botchway, Stanley; Parker, Anthony; O'Neill, Peter

(PS3.42) *Real-time dynamics of repair proteins recruited to radiation induced DSBs: evidence of sub-classes for DSBs.*

Amoah-Buahin, Evelyn; Yildirim, Salih; Chalmers, Anthony J.

(PS3.43) *Mechanisms underlying radiation resistance in glioma stem cells.*

Schmid, Thomas E.; Dollinger, Guenther; Hable, Volker; Greubel, Christoph; Zlobinskaya, Olga; Michalski, Doerte; Auer, Susanne; Friedl, Anna A.; Molls, Michael; Roeper, Barbara

(PS3.44) *No evidence for a different RBE between pulsed and continuous 20 MeV protons for induction of micronuclei in a 3D human skin model.*

Eccles, Laura J.; Lomax, Martine E.; Angelov, Dimitar; O'Neill, Peter

(PS3.45) *Investigating the repair of clustered DNA damage in reconstituted mononucleosomes.*

Kachnic, Lisa A.; Fournier, Loreen; Gheorghiu, Liliana; Rosenberg, Carol; Powell, Simon N.; Willers, Henning
(PS3.46) *Utility of chemotherapy-induced Rad51 foci for the identification of homologous recombination defects in breast cancer cell lines.*

Mitchell, Jody; Vallis, Katherine A.
(PS3.47) *Characterization of clustered DNA damage induced by Auger electron-emitting radiopharmaceuticals.*

Chaudhry, M. Ahmad; Kreger, Bridget; Omaruddin, Romaica
(PS3.48) *Transcriptional modulation of micro-RNA in human cells differing in radiation sensitivity.*

Tse, Kenneth Chor Kin; Jalali, Farid; Ahmed, Kashif; Kumareswaran, Ramya; Dellaire, Graham; Bazett-Jones, David P.; Bristow, Robert G.
(PS3.49) *Pml nuclear bodies are juxtaposed to dna-dsbs following ir-induced dna damage.*

Singh, Satyendra; Wu, Weizhong; Wu, Wenqi; Wang, Minli; Iliakis, George
(PS3.50) *Extensive repair of DNA double strand breaks in cells deficient in the DNA-PK dependent pathway of NHEJ after exclusion of heat labile sites.*

Hu, Burong; Aroumougame, Asaithamby; Chen, David J.
(PS3.51) *Cellular responses to clustered DNA damages induced by high energy and high-Z particles irradiation.*

Zhang, Ye; Rohde, Larry H.; Gridley, Daila S.; Mehta, Satish K.; Pierson, Duane L.; Wu, Honglu
(PS3.52) *Altered gene expressions and cytogenetic repair efficiency in cells with suppressed expression of XPA after proton exposure.*

Mereniuk, Todd; Weinfeld, Michael
(PS3.53) *Refining the model of DNA single-strand break repair.*

Saba, Julie D.
(PS3.54) *Sphingosine phosphate lyase as a regulator of the dna damage response.*

Nahas, Shareef A.; Gatti, Richard A.
(PS3.55) *Functional analysis of human radiosensitive cell lines enables molecular diagnoses of DNA repair disorders.*

Chernikova, Sophia B.; Nguyen, Rochelle; Wu, Jason; Solow-Cordero, David; Brown, J. Martin
(PS3.56) *Identification of Novel Inhibitors of Homologous Recombination for Cancer Therapy.*

PS4. CELL/TISSUE SIGNALING-II RADIATION COUNTERMEASURES-II

Monday, October 05, 2009, 2:15 pm - 3:00 pm, Atrium and Plaza

Yunis, Reem; Kalanetra, Karen M.; Albrecht, Huguette; Wu, Shiquan; Ray, Monika; Goldberg, Zelena; Rocke, David M.
(PS4.01) *Genomic characterization of three dimensional skin model following exposure to low dose ionizing radiation.*

Lominska, Chris; Jung, Mira; Kromer, Lawrence; Timofeeva, Olga; Dritschilo, Anatoly
(PS4.02) *Role of ephb1 as a mediator of the atm phenotype.*

Costes, Sylvain; Mukhopadhyay, Rituparna; Yaswen, Paul; Barcellos-Hoff, Mary Helen
(PS4.03) *Agent-based model predicts radiation-induced increase in the outgrowth of p16ink4a-negative human mammary epithelial cells from primary cultures.*

Suman, Shubhankar; Chandna, Sudhir; Seth, Rakesh K.
(PS4.04) *Evidence for reduced nitrosative stress in the radioresistant Sf9 insect cells.*

Rouschop, Kasper M. A.; van den Beucken, Twan; Dubois, Ludwig; Niessen, Hanneke; Bussink, Johan; Savelkouls, Kim; Mujcic, Hilda; Lambin, Philippe; van der Kogel, Albert J.; Koritzinsky, Marianne; Wouters, Bradly G.
(PS4.05) *The unfolded protein response protects cells during hypoxia through preservation of autophagic capacity.*

Palayoor, Sanjeewani T.; John-Aryankalayil, Molykutty; Cerna, David; Coleman, C. Norman
(PS4.06) *Radiation-induced differential expression of genes associated with cardiovascular pathogenesis in prostate carcinoma cells.*

Betts, Guy N. J.; Carla S. Moller - Levet; Miller, Crispin J.; West, Catharine M. L.
(PS4.07) *Alternative spicing in hypoxic head and neck carcinoma samples: identification and validation.*

Wang, Yong; Morris, Melissa N.; Zhou, Daohong
(PS4.08) *Identification and characterization of senescence-associated microRNAs induced by ionizing radiation.*

Yin, Liangjie; Zhang, Kunzhong; Zhang, Mei; Okunieff, Paul; Zhang, Lurong; Vidyasagar, Sadasivan
(PS4.09) *Increased [Ca2+]i and [cAMP]i in crypt cell region stimulate IR-induced anion secretion.*

Mayer, Arnulf G.; Steimel, Michaela; Wree, Alexander; Kelleher, Debra; Vaupel, Peter
(PS4.10) *Allografted sarcoma cell growth results in microenvironments similar to pre-implantation conditions.*

Zhang, Mei; Zhang, Bingrong; Cao, Yongbing; Tian, Yeping; Yin, Liangjie; Zhang, Kunzhong; Zhang, LuLu; Zhang, Aiguo; Stwarts, Steven; Okunieff, Paul; Zhang, Lurong
(PS4.11) *Assessment of plasma inflammatory molecules with bead array:murine acute response to ionizing radiation.*

Cary, Lynnette H.; Xiang Hong Li; Whitnall, Mark
(PS4.12) *Endothelial cells exposed to neutron/gamma mixed field radiation secrete factors involved in chemotaxis, angiogenesis, and cell survival.*

Skala, Melissa; Fontanella, Andrew; Izatt, Joseph; Dewhirst, Mark
(PS4.13) *Multi-functional optical microscope for monitoring cycling hypoxia in tumors.*

Stegeman, Hanneke; Kaanders, Johannes H. A.; Span, Paul N.; Peters, Johannes P. W.; Van der Kogel, Albert J.; Bussink, Jan
(PS4.14) *The tumor microenvironment and repair modulation of radiation-induced DNA damage by EGFR inhibition in human tumor xenografts.*

Tholta, Dinesh Kumar; Hallahan, Dennis E.; Yazlovitskaya, Eugenia; Korade, Zeljka
(PS4.15) *Ionizing radiation down-regulates cholesterol biosynthesis enzymes in hippocampal neurons.*

Mukherjee, Debayan; Lorimore, Sally; Coates, Philip J.; Wright, Eric G.
(PS4.16) *Radiation induced cell killing and apoptosis after in vivo or in vitro exposure of bone marrow cells.*

Wilkinson, Diana; Li, Chunsheng; Jones, Aimee; Wyatt, Heather; Bugden, Michelle
(PS4.17) *Biological effects in rats from internalized polonium-210.*

Berbée, Maaike; Fu, Qiang; Werner, Ernst R.; Hauer-Jensen, Martin
(PS4.18) *The effect of total body irradiation on the availability of the NOS cofactor tetrahydrobiopterin.*

Rajagopalan, Malolan S.; Epperly, Michael W.; Stripp, Barry R.; Reynolds, Susan D.; Shen, Hongmei; Dixon, Tracy; Franicola, Darcy; Zhang, Xichen; Niu, Yunyun; Greenberger, Joel S.
(PS4.19) *Thoracic irradiation depletes clara cell secretory protein expressing murine lung progenitor cells.*

Nantajit, Danupon; Fan, Ming; Gius, David; Jian Jian Li
(PS4.20) *Mitochondrial translocation of cyclin B1 inhibits p53-mediated apoptosis.*

Nawata, Hisakatsu
(PS4.21) *Aneuploidy cause cell transformation.*

Wennemers, Marloes; Sweep, Fred C. G.; Bussink, Jan; Span, Paul N.
(PS4.22) *Does Tribbles-3 mediate the ER stress-induced poor prognosis in breast cancer?*

Tamfu, Richard C.; Natarajan, Aravindan; Yu, Hui; Mohan, Sumathy; Shanmugasundaram, Kathigayan; Natarajan, Mohan
(PS4.23) *Radiation-mediated crosstalk between ER-α and eNOS contributes to breast cancer cell invasion and migration.*

Lee, Minyoung; Lee, Hae-June; Yeung Bae Jin; Park, Jung-Jin; Bae, Sangwoo; Lee, Yun-Sil
(PS4.24) *Integrin β1 Sialylation is involved in radiation-induced migration and metastasis.*

Marignol, Laure H.; Perry, Antoinette; Martin, Lynn; Lynch, Thomas; Lawler, Mark; Hollywood, Donal
(PS4.25) *Hypoxia may participate in disease progression and radioresistance through the induction of Notch-3 and upregulation of DNA repair genes in prostate cancer.*

Gorbunov, Nikolai V.; Kiang, Juliann G.
(PS4.26) *Response of Intestinal Paneth Cells to Total-Body γ-Irradiation.*

Kim, Eun-Ho; Lee, Yoon-Jin; Bae, Sangwoo; Jae Seon Lee; Kim, Joon
(PS4.27) *Hsf1-mediated aneuploidy is dependent on a defective function of p53.*

Paris, François; Niaudet, Colin; Bonnaud, Stéphanie; Gaugler, marie-hélène; Corre, Isabelle
(PS4.28) *Genotoxic stress induces P38-mediated endothelial cell death through ceramide generation and membrane remodeling.*

Peters, Eldon C.; Sambade, Maria J.; Tompkins, Patrick M.; Carson, Craig C.; Kimple, Randall J.; Shields, Janiel M.
(PS4.29) *Melanoma cells exhibit a wide range of radiosensitivity that correlates with a defect in G1 arrest but not mutational status of B-RAF or N-RAS.*

Hopkins, Deidre; Maqbool, Muhammad; Islam, Mohammad
(PS4.30) *Determination of buildup factors and linear attenuation coefficient of mcp-96 alloy for its use in radiation protection.*

Ramanan, Sriram; Kooshki, Mitra; Zhao, Weiling; Hsu, Fang-Chi; Riddle, David R.; Robbins, Mike E.
(PS4.31) *Administering the PPARalpha agonist fenofibrate preserves hippocampal neurogenesis following whole-brain irradiation in mice.*

Ghosh, Sanchita P.; Kulkarni, Shilpa; Satyamitra, Merriline M.; Hieber, Kevin; Romanyukha, Lyudmila; Gambles, Kristen; Toles, Raymond; Hauer-Jensen, Martin; K. Sree Kumar
(PS4.32) *Hematopoietic recovery by Gamma-tocotrienol in total-body irradiated mice.*

Down, Julian D.; Wojtkiewicz, Gregory R.
(PS4.33) *Micro-CT and MRI evaluation of the lung in different mouse strains receiving whole thorax irradiation.*

Boerma, Marjan; Roberto, Kerrey A.; Wang, Junru; Hauer-Jensen, Martin
(PS4.34) *Transforming growth factor-beta and radiation-induced heart disease in rats.*

Moroni, Maria; Coolbaugh, Thea V.; Moccia, Krinon D.; Mitchell, Jennifer M.; Nagy, Vitaly; Wilkinson, Diana; Pace, Paul; Whitnall, Mark H.
(PS4.35) *Development of a radiation injury model based on Gottingen minipig (Sus scrofa domestica).*

Singh, Vijay K.; Brown, Darren S.
(PS4.36) *Role of granulocyte-colony stimulating factor in radioprotection by alpha-tocopherol succinate.*

King, Gregory L.; Villa, Vilmar; Rahman, Arifur; Mitchell, Jennifer; Farese, Ann M.; MacVittie, Thomas J.; Blakely, William F.
(PS4.37) *Ars severity-response and "early humane endpoint" scoring system for nonhuman primate radiation dose-response model.*

Sandgren, David J.; Ossetrova, Natalia I.; Levine, Ira H.; Gallego, Sergio; Blakely, William F.
(PS4.38) *Deployable radiation biodosimetry system.*

Zhao, Weiling; Braden, Amy; Ding, Xuan-feng; Deng, Zhiyong; Wheeler, Kenneth T.; Bourland, J. Daniel
(PS4.39) *A rat model for assessing in-field and out-of-field late brain injury after focal gamma knife irradiation.*

Satyamitra, Merriline M.; Mullaney, Conor; Ney, Patrick; Johnson, Krista; Hunter, Jeffery; Tamburini, Paul; Wang, Yi; Springhorn, Jeremy; Srinivasan, Venkataraman
(PS4.40) *A novel TPO agonist, Alxn4100TPO mitigates radiation induced lethality in CD2F1 mice by increasing thrombopoiesis.*

Fish, Brian L.; Moulder, John E.; Mader, Marylou; Schock, Ashley; Cohen, Eric P.
(PS4.41) *Ang(1–7): A Mechanism for the Efficacy of ACE Inhibitors in the Mitigation of Radiation Nephropathy?*

Ledney, G. D.; Jiao, Wan; Elliott, T. B.; Kiang, J. G.
(PS4.42) *Countermeasure evaluations for combined injury.*

Fu, Qiang; Berbée, Maaike; Boerma, Marjan; Wang, Junru; Schmid, Herbert A.; Martin Hauer Jensen
(PS4.43) *Development of SOM230 as a radiation mitigator: post-radiation time window and mechanism of action.*

Srinivasan, Venkataraman; Condliffe, Donald; Singh, Vijay K.; Shakhov, Alexander; Feinstein, Elena; Whitnall, Mark
(PS4.44) *Radiation countermeasure studies in mice with CBLB613, a TLR 2/6 agonist.*

Wang, Xiao-Chun; Meng, Ai-Min
(PS4.45) *Overexpression of cks1 is associated with poor survival by inhibiting apoptosis in breast cancer.*

Rahman, Arifur; Ossetrova, Natalia I.; Sandgren, David J.; Gallego, Sergio; Clinton, Harley; Krasnopolsky, Katya; Nagy, Vitaly; Blakely, William F.
(PS4.46) *Rhesus macaque dose-response model for validation of multiple parameter biodosimetry assays: Dosimetry char-*

acterization and early-phase radioresponse of hematology and blood chemistry biomarkers.

Jia, Dan; Koonce, Nathan A.; Griffin, Robert J.; Webber, Jessica S.; Corry, Peter M.
(PS4.47) *Protection and rescue of mice from abdominal irradiation-induced acute death by antioxidant NAC.*

Niu, Yunyun; Wang, Hong; Wiktor-Brown, Dominika; Rugo, Rebecca; Shin, Hongmei; Huq, Saiful; Engelward, Bevin; Epperly, Michael; Greenberger, Joel
(PS4.48) *Manganese superoxide dismutase plasmid liposome complex protects irradiated esophageal cells from homologous recombination.*

Pathak, Rupak; Ramakumar, Adarsh; Subramanian, Uma; Prasanna, Pataje G. S.
(PS4.49) *Analysis of chromosomal aberrations involving human chromosome 1 and 2 in interphase- and metaphase-spreads after 60Co γ-irradiation.*

Epperly, Michael; Rugo, Rebecca; Cao, Shaonan; Wang, Hong; Franicola, Darcy; Goff, Julie; Shin, Hongmei; Zhang, Xichen; Wiktor-Brown, Dominika; Engelward, Bevin; Greenberger, Joel S.
(PS4.50) *Investigation of the effects of aging on homologous recombination in long term bone marrow cultures.*

Kulkarni, Shilpa S.; Ghosh, Sanchita; Mog, Steven; Hieber, Kevin; Romanyukha, Lyudmila; Gambles, Kristen; Toles, Raymond; Hauer-Jensen, Martin; Kumar, Sree
(PS4.51) *γ-tocotrienol protects hematopoietic stem cells and induces G2 arrest in mouse marrow after total body irradiation.*

Chaze, Thibault; Chambon, Christophe; Benderitter, Marc; Guipaud, Olivier
(PS4.52) *Using proteomics to predict the severity of radiation-induced lesions.*

Rabbani, Zahid; Jackson, Isabel L.; Batinic-Haberle, Ines; Vujaskovic, Zeljko
(PS4.53) *Low molecular weight catalytic metalloporphyrin antioxidant AEOL 10150 improves survival and protects lungs from radiation.*

Yang, Shanmin; Zhang, Mei; Su, Ying; Xiao, Zhengyu; Wang, Wei; Zhang, Hengshan; Fenton, Bruce M.; Keng, Peter; Stwarts, Steven; Zhang, Lurong; Okunieff, Paul
(PS4.54) *Triptolide Reduces Radiation-induced Skin Damage via Inhibition of Inflammatory Molecules.*

Martin, Roger F.; Lobachevsky, Pavel N.; Karagiannis, Tom; Rajasekhara, Vasireddy; Sprung, Carl N.
(PS4.55) *Mechanism of radioprotection by methylproamine.*

Presley, Chaela S.; Thompson, Karin E.; Wilson, Christy M.; Gaber, M. W.; Zeng, Kui; Miller, Duane D.; Yates, Charles R.
(PS4.56) *KZ-41 exhibits radiomitigating activity in a murine combined radiation and vascular injury model.*

Abergel, Rebecca J.; Chang, Polly Y.; Blakely, Eleanor A.; Shuh, David K.; Raymond, Kenneth N.
(PS4.57) *Hydroxypyridonate Chelators: A Perspective on the Development of Orally Active Decorporation Agents.*

PS5. BYSTANDER AND ADAPTIVE RESPONSES/ EXPERIMENTAL THERAPEUTICS-I

Tuesday, October 06, 2009, 1:30 pm - 2:30 pm, Plaza and Mezzanine

Albrecht, Huguette; Yunis, Reem; Kalanetra, Karen M.; Goldberg, Zelanna; Rocke, David M.
(PS5.01) *LDIR induced proteomic changes in human skin.*

Purschke, Martin; Anderson, Rox; Manstein, Dieter
(PS5.02) *Thermal injury causes lethality and DNA damage in unheated surrounding cells: Active thermal bystander effect (ATBE).*

Aravindan, Natarajan; Madusoodhanan, Rakhesh; Veeraraghavan, Jamunarani; Herman, Terence S.; Natarajan, Mohan
(PS5.03) *Non-targeted effect after low LET radiation exposure involves tumor-type -dependent differential regulation of NFκB signaling.*

Butterworth, Karl T.; McGarry, Conor K.; Hounsell, Alan R.; Prise, Kevin M.
(PS5.04) *Development of new radiobiological models for evaluating cellular responses to intensity-modulated radiation fields.*

Cohen, Eric P.; Raff, Hershel; Bruder, Eric D.; Jankowski, Barbara M.
(PS5.05) *Adrenal axis response to total body irradiation.*

Abdelrazzak, Abdelrazek B.; Portess, Daniel I.; Bauer, Georg; O'Neill, Peter; Hill, Mark A.
(PS5.06) *The role of radiation quality in the stimulation of intercellular induction of apoptosis in transformed cells by very low doses.*

Yang, Hongying; Magpayo, Nicole; Held, Kathryn D.
(PS5.07) *Adaptive response in bystander AG01522 human fibroblasts sharing medium with cells irradiated with iron ions.*

Saroya, Rohin; Smith, Richard W.; Seymour, Colin B.; Mothersill, Carmel E.
(PS5.08) *Examining serotonin as a potential modulator of bystander effectcommunication in vivo in zebrafish.*

Kashino, Genro; Kumagai, Jun; Ono, Koji; Watanabe, Masami
(PS5.09) *The role of radicals in bystander effect through the secreted factors from irradiated cells.*

Singh, Harleen
(PS5.10) *Radiation induced bystander effects in mice given priming doses before irradiation in vivo.*

Persson, Bertil R.; Catrin Bauréus Koch; Grafström, Gustav; Ceberg, Crister; Nittby, Henrietta; Widegren, Bengt; Salford, Leif G.
(PS5.11) *Abscopaleffect in subcutaneously implanted tumors (N29 glioma) in rats treated with combined radiation therapy; and/or immunization with tumor cells.*

Ghandhi, Shanaz A.; Sinha, Anshu; Yaghoubian, Ben; Zhou, Hongning; Vladimir, Vladimir; Hei, Tom K.; Markatou, Marianthi; Amundson, Sally A.
(PS5.12) *Dynamics of gene expression in the radiation bystander response in normal human fibroblasts cells.*

Liber, Howard L.; Zhang, Ying; Prise, Kevin M.; Redmond, Robert W.; Held, Kathryn D.
(PS5.13) *Ionizing radiation-induced bystander mutagenesis and adaptation: Quantitative and temporal aspects.*

Serra, Virginia G.; Ortloff, Leticia; Chapman, Kim; Kadhim, Munira; Green, Lora
(PS5.14) *Effect of physical and/or soluble factor inhibition on cellular damage post irradiation.*

Jones, Tamako; Ortloff, Leticia; Perez, Celso; Nelson Gregory A.
(PS5.15) *In vivo Bystander Effects in the C. elegans Intestine.*

Chai, Yunfei; Huang, Sarah X.; Calaf, Gloria M.; Hei, Tom K.
(PS5.16) *Radiation induced bystander mutagenesis in the gpt delta transgenic mouse model.*

Rithidech, Kanokporn; Yin, Xian; Honikel, Louise; Reungpatthanaphong, Paiboon; Witzmann, Frank
(PS5.17) *Characterization of protein expression profiles associated with adaptive response induced by low-dose radiation.*

Staudacher, Alexander H.; Ormsby, Rebecca J.; Blyth, Benjamin J.; Bauer, Georg; Sykes, Pamela J.
(PS5.18) *Detecting intercellular induced apoptosis of cancer-prone cells stimulated by low dose radiation in vivo.*

Sharma, Sunil; Webber, Jessica; Koonce, Nathan; Griffin, Robert J.; Penagaricano, Jose A.; Moros, Eduardo G.; Corry, Peter M.
(PS5.19) *Spatially fractionated radiation therapy (GRID) on implanted tumors using SACRTD.*

Dickey, Jennifer S.; Baird, Brandon J.; Redon, Christophe E.; Sokolov, Mykyta V.; Sedelnikova, Olga A.; Bonner, William M.
(PS5.20) *The bystander effect to intercellular communication of damage.*

Moravan, Michael J.; Hurley, Sean D.; Sorensen, Elizabeth W.; Hernady, Eric; Trojanczyk, Lee A.; Olschowka, John A.; Williams, Jacqueline P.; M. Kerry O'Banion; Wu, Michael
(PS5.21) *Acute and chronic neuroinflammation with delayed infiltration of peripherally-derived immune cells in C57BL/6J mouse brain following cranial irradiation.*

Mezentsev, Alexandre; Amundson, Sally
(PS5.22) *Bystander effects of alpha particles in a 3-dimensional tissue model.*

Zhang, Jie; Sonia M. de Toledo; Guo, Guozheng; Azzam, Edouard
(PS5.23) *Novel role of the translationally controlled tumor protein in DNA repair and the protective effects of low dose γ-Rays.*

Paunesku, Tatjana; Wang, Qiong; Wanzer, Michuel B.; Woloschak, Gayle E.
(PS5.24) *Radiation induced changes in mitochondrial genome copy numbers.*

Al Rashid, Shahnaz T.; Mashal, Stephanie; Prise, Kevin M.
(PS5.25) *Two- and three-dimensional models of radiation-induced direct and bystander signalling and interaction pathways between primary astrocytes and glioma cells.*

Stantz, Keith M.; Cao, Ning; Liu, Bo; Chin-Sinex, Helen; Mendonca, Marc; Jian Jian Li
(PS5.26) *Effects of Radiation on NF-κB and tumor hemodynamics in Breast Tumors.*

Shanmugasundaram, Karthigayan; Natarajan, Aravindan; Tamfu, Richard C.; Otto, Randal A.; Natarajan, Mohan
(PS5.27) *Radiation-induced non-targeted effect in tumor angiogenesis is mediated by IKK-β activation.*

Shareef, Mohammed M.; Gupta, Seema; Ahmed, Mansoor M.
(PS5.28) *Role of TNF-alpha and TRAIL in high dose radiation-induced bystander signaling in lung adenocarcinoma.*

Bertucci, Antonella; Pocock, Roger D. J.; Randers-Pehrson, Gerhard; Brenner, David J.
(PS5.29) *Microbeam induced stress response in the C. elegans nematode.*

Xu, Y; Randers-Pehrson, G.; Marino, S.; Brenner, D. J.
(PS5.30) *A neutron microbeam.*

Buonanno, Manuela; Sonia M. de Toledo; Howell, Roger W.; Pain, Debkumar; Azzam, Edouard I.
(PS5.31) *Radiation quality and the induction of long-term biological effects in irradiated normal human cells and neighboring bystanders: the role of oxidative metabolism.*

Harken, Andrew; Randers-Pehrson, Gerhard; Brenner, David
(PS5.32) *Soft x-ray microbeam at columbia university.*

Beheshti, Afshin; Enderling, Heiko; Perkins, Matthew; Burg, Aaron; Lamont, Clare; Weremowicz, Janusz; Peluso, Michael; Szelag, Heather; Hahnfeldt, Philip; Hlatky, Lynn
(PS5.33) *Corrupting the microenvironment: Cancer cells induce repair foci, indicative of DNA damage, in neighboring stromal cells.*

Chambers, Dwight M.; Vu, An T.; Davidson, Matthew A.; Yanch, Jacquelyn
(PS5.34) *Impact of dose-rate on the adaptive response incho cells.*

Leonard, Bobby E.; Thompson, Richard E.
(PS5.35) *Evidence of influence from bystander effect and adaptive response radio-protection on human lung cancer risks from radon based on case-control studies.*

Pluder, Franka; Steininger, Sylvia; Nylund, Reetta; Atkinson, Michael J.; Leszczynski, Dariusz; Tapio, Soile
(PS5.36) *Endothelial cells as targets of low-dose radiation in cardiovascular diseases.*

Jones, Adam; McKenzie, Joshua T.; Pablo, John; Geffen, Morris
(PS5.37) *Analysis of treatment of prostate cancer with radiotherapy in a private setting, with an emphasis on toxicity.*

Davis, Mary A.; Lawrence, Theodore S.
(PS5.38) *The use of radiosensitizers with low dose rate radiation in the treatment of liver cancer.*

Kalanetra, Karen M.; Berglund, Susanne R.; Yunis, Reem; Albrecht, Huguette; Wu, Shiquan; Lu, Ruixiao; Lehmann, Joerg; Witt, Heather; Stern, Robin; Rocke, David M.; Goldberg, Zelanna
(PS5.39) *Gene expression time course response of human tissue exposed to low dose ionizing radiation in vivo.*

Farese, Ann M.; Cohen, Melanie V.; Gibbs, Allison M.; Smith, Cassandra P.; Bennett, Alexander W.; Katz, Barry; Nguyen, James; MacVittie, Thomas J.
(PS5.40) *Filgrastim administration significantly improves survival in nonhuman primates following a 50% lethal dose of total body irradiation.*

Wiant, David; Atwood, Todd; Olson, John; Papagikos, M.; Forbes, M. E.; Riddle, David; Bourland, J. D.
(PS5.41) *Gamma Knife™ radiosurgery treatment planning for small animals using high resolution 7T micro-magnetic resonance imaging.*

Roellig, Sophie; Haagen, Julia; Schmidt, Margret; Wolfram, Kathrin; Doerr, Wolfgang
(PS5.42) *Effects of TNF-α inhibition on radiation-induced oral mucositis (mouse).*

Khaitan, Divya; Mazar, Joseph; Sankpal, Umesh; Perera, Ranjan; Ningaraj, Nagendra
(PS5.43) *Partial silencing of KCNMA1 attenuates glioma growth.*

Barnett, Gillian C.; Burnet, Neil G.; Coles, Charlotte E.; West, Catharine M. L.; Elliott, Rebecca M.; Baynes, Caroline; Pharoah, Paul D. P.; Wilkinson, Jenny; Dunning, Alison M.
(PS5.44) *The influence of TBFB1 polymorphisms and acute effects on the incidence of late radiation toxicity of the breast: preliminary results of the RAPPER study.*

Zawaski, Janice A.; M. Waleed Gaber; Sabek, Omaima M.; Wilson, Christy M.; Merchant, Thomas E.
(PS5.45) *The effect of thalidomide treatment in a rat radiation brain tumor model.*

Monique C. de Jong; Begg, Adrian C.; Pramana, Jimmy; Marie-Louise van Velthuysen; Lacko, Martin; Schuuring, Ed; Lambert J. C. van den Broek; Grenman, Reidar; Takes, Robert P.; Hoebers, Frank J. P.; van den Brekel, Michiel W. W.
(PS5.46) *Prediction of local recurrence after radiotherapy in head and neck cancer by expression profiling.*

Khan, Mohammad N.; Mupparaju, Sriram; Hou, Huagang; Lariviere, Jean P.; Swartz, Harold M.
(PS5.47) *Tumor pO2 as prognostic marker for vessel normalization during metronomic chemotherapy: Therapeutic window and its consequence on outcome.*

Sankpal, Umesh T.; Khaitan, Divya; Ningaraj, Nagendra
(PS5.48) *Identification and characterization of a novel splice variant of KCNMA1.*

Manzoor, Ashley; Park, Ji-young; Needham, David; Dewhirst, Mark
(PS5.49) *Temperature sensitive liposomes: the impact of intravascular release on drug delivery and physiology.*

Li, Zhixin; Zhu, Xiaoguang; Capacete, Joseph; Zhao, Ming
(PS5.50) *Imaging radiation-induced tissue apoptosis using 99mTc-Duramycin.*

Shakhov, Alexander; Strom, Eugenia; Ryabokon, Petro; Gurova, Katerina; Bone, Frederick; Kononov, Eugene; Toshkova, Troitza; Singh, Vijay; Feinstein, Elena
(PS5.51) *Protectan CBLB612 - a new agent for radical improvement of hematopoietic stem cell proliferation and mobilization for treatment of cancer and acute radiation syndrome.*

Deadwyler, Sam; Wheeler, Kenneth T.; Bourland, J D.; Robbins, Mike E.
(PS5.52) *A nonhuman primate model of radiation-induced cognitive impairment.*

Zhang, Ye; Rohde, Larry H.; Mehta, Satish K.; Pierson, Duane L.; Wu, Honglu
(PS5.53) *Changes of Gene Expression in the Apoptosis Pathway in Lncap and PC3 Cells Exposed to X-Rays or Protons.*

Hanna, Gabi; Wergin, Melanie; Tailor, Tina; Herbert, Joseph; Palmer, Gregory; Schroeder, Thies; Vlahovic, Gordana; Dewhirst, Mark
(PS5.54) *Antiangiogenic therapy (Pazobanib-VEGF-R1–3 and PDGFR inhibitor) increases tumor hemoglobin saturation and decreases interstitial pressure (IFP) and microvessel density (MVD).*

Rockwell, Sara; Liu, Yanfeng

(PS5.55) *Aplidin as a Potential Adjunct to Radiotherapy: In Vitro Studies.*

Simons, Andrean L.; Parsons, Arlene D.; Foster, Katherine A.; Orcutt, Kevin P.; Fath, Melissa A.; Spitz, Douglas R.

(PS5.56) *Inhibition of glutathione and thioredoxin metabolism enhances sensitivity to perifosine in head and neck cancer cells.*

Hou, Huagang; Jean P Lariviere; Swartz, Harold M.; Khan, Nadeem

(PS5.57) *Repetitive in vivo multi-site EPR oximetry measurements of regional oxygenation in RIF-1 murine tumor following carbogen and 100% oxygen inhalation.*

Charest, Gabriel; Paquette, Benoit; Fortin, David; Mathieu, David; Sanche, Léon

(PS5.58) *New liposomal platinum compounds to improve the concomitant treatment of F98 glioma cells with ionizing radiation.*

Haque, Munima; Liu, G. L.

(PS5.59) *Diagnostic imaging and high precision gene therapy of mesothelioma using nontoxic nanocarriers.*

Gerashchenko, Bogdan; Gooding, Gerirose; Dynlacht, Joseph R.

(PS5.60) *Dynamics of focus formation and co-localization analysis of proteins of the Mre11 complex in heated, irradiated cells.*

Mei Hong, An Xu, Hongning Zhou, Lijun Wu, Gerhard Randers-Pehrson, Rigina Santell, Zengliang Yu, Tom Hei

(PS5.61) *Mechanism of Cytoplasmic Irradiation: A Signaling Pathway Involving 4-HNE and COX-2 in its Genotoxic Effect*

PS6. DNA DAMAGE, REPAIR AND RESPONSE-II RADIATION COUNTERMEASURES-III

Tuesday, October 06, 2009, 4:30 pm - 5:30 pm, Atrium

Wang, Huichen; Tian, Linlin; Patel, Zarana; Wang, Minli; Huff, Janice L.; Cucinotta, Francis A.

(PS6.01) *Interaction of EGFR pathway with ATM mediated homologous recombination.*

Kuhne, Wendy; Bertucci, Antonella; Randers-Pehrson, Gerhard; Marino, Stephen; Brenner, David; Dynan, William S.

(PS6.02) *Imaging the response to microbeam irradiation in an intact vertebrate.*

Meller, Nahum

(PS6.03) *Regulation of DNA-dependent protein kinase (DNA-PK) by protein phosphatase 6 (PP6).*

Mills, Caitlin; Collins, Tony; Andrews, David; Boreham, Doug

(PS6.04) *Effects of Bcl-2 and Bcl-XL on genomic instability in breast cancer cell lines.*

Loucas, Bradford D.; Cornforth, Michael N.
(PS6.05) *Cells carrying radiation induced transmissible exchanges may have a selective growth advantage.*

Purkayastha, Shubhadeep; Datta, Kamal; Neumann, Ronald D.; Winters, Thomas A.
(PS6.06) *Differential positional effects of base damage clustering on the processing of complex DNA double strand breaks by non-homologous end joining and base excision repair.*

Lenarczyk, Marek; Cohen, Eric P.; Fish, Brian L.; Sharma, Mukut; Moulder, John E.
(PS6.07) *Oxidative stress to mitochondrial DNA and its relationship to rat's radiation nephropathy.*

Meador, Jarah; Su, Yanrong; Du, Rong; Morris, Rebecca; Balajee, Adayabalam
(PS6.08) *Analysis of ionizing radiation induced DNA damage and repair in human multipotent adult stem cells and differentiated cell types.*

Bigelow, Alan W.; Geard, Charles R.; Randers-Pehrson, Gerhard; Brenner, David J.
(PS6.09) *Radiation-biology applications using a multiphoton microscope.*

Mohapatra, Susovan; Povirk, Lawrence F.; Khan, Imran; Misako Kawahara Stillion; Yannone, Steven M.
(PS6.10) *Restoration of chemo/radioresistance and double-strand break repair proficiency by wild-type but not endonuclease-deficient artemis.*

Sharma, Girdhar G.; So, Sairie; Chen, David J.; Bhidra, Utpal; Gupta, Arun; Misri, Sandeep; Kumar, Rakesh; Cote, Jacques; Pandita, Tej K.
(PS6.11) *MOF function is critical in DNA Damage Response.*

Hu, Shaowen; Wang, Huichen; Pluth, Janice M.; Cucinotta, Francis A.
(PS6.12) *Computational study on full-length human Ku70 with double stranded DNA: dynamics, interactions and functional implications.*

Zhang, Bingrong; Cao, Yongbing; Zhang, Mei; Tian, Yeping; Yin, Liangjie; Zhang, Kunzhong; Yang, Shanmin; Stwarts, Steven; Howell, Robert; Okunieff, Paul; Zhang, Lurong
(PS6.13) *Lipolysaccharide at high dose enhances radiation-induced plasma DNA levels.*

Taylor, Kristina; McFarlane, Nicole; Bahen, Mary-Ellen; Laframboise, Lisa; McNeill, Fiona; Boreham, Doug
(PS6.14) *Modification of carcinogenic risk by positron emission tomography scans.*

Moskalenko, Oleksandr; Grygoryev, Dmytro; Hinton, Thomas; Zimbrick, John D.
(PS6.15) *Evidence for a transgenerational adaptive DNA repair response after chronic low-dose irradiation in a medaka fish model system.*

Velissariou, Angeliki

(PS6.16) *The role of the spindle assembly checkpoint in the ionising radiation response.*

Hill, Helene Z.; Azzam, Edouard I.; Yang, Zhi; Galdass, Mariann; Sonia de Toledo; Spitz, Douglas; Dermody, James

(PS6.17) *Effect of ionizing radiation and serum concentration on mitochondrial DNA copies of Chinese hamster cells deficient in electron transport.*

So, Sairei; Davis, Anthony J.; Chen, David J.

(PS6.18) *Autophosphorylation at serine 1981 stabilizes ATM at DNA damage sites and regulates its cellular response to DNA damage.*

Nagasawa, Hatsumi; Chen, Benjamin P. C.; Peng, Yuanlin; Brogan, John R.; Chen, David J.; Bedford, Joel S.; Little, John B.

(PS6.19) *Relationship Between Radiosensitivities and G0/G1 DNA-PKcs site-directed mutant cell strains in DNA-damages induced by low dose γ-ray and α-particle irradiation.*

Baird, Brandon J.; Redon, Christophe E.; Nakamura, Asako J.; Dickey, Jennifer S.; Griko, Yuri; Sedelnikova, Olga A.; Bonner, William M.

(PS6.20) *Hypothermia improves cell viability and repair capacity after ionizing radiation.*

Mukherjee, Bipasha; McEllin, Brian; Camacho, Cristel; Tomimatsu, Nozomi; Boothman, David; Bachoo, Robert; Burma, Sandeep

(PS6.21) *Egfrviii and dna double-strand break repair: a molecular mechanism for radioresistance in glioblastoma.*

Zhang, Lei; Zhang, Mei; Zhang, Bingrong; Yang, Shanmin; Cao, Yongbing; Tian, Yeping; Zhang, LuLu; Zhang, Aiguo; Ma, Yunqing; Okunieff, Paul; Zhang, Lurong

(PS6.22) *Elevation of plasma dna level is associated with genomic background.*

Tomimatsu, Nozomi; Mukherjee, Bipasha; Burma, Sandeep

(PS6.23) *Distinct roles of atr and dna-pk in triggering dna damage responses in atm-deficient cells.*

Cao, Zhen; Kuhne, Wendy; Steeb, Jennifer; Janata, Jiri; Dynan, William

(PS6.24) *Creation and analysis of DSBs in real time using a stage-mounted microirradiator.*

Wilson, Paul F.; Hinz, John M.; Urbin, Salustra; Nham, Peter B.; Thompson, Larry H.

(PS6.25) *The role of homologous recombinational repair (HRR) in determining radiosensitivity throughout the mammalian cell cycle.*

Yue, Jingyin; Lu, Huimei; Brenneman, Mark; Shen, Zhiyuan

(PS6.26) *Requirement of filamin-A for efficient homologous recombination DNA repair: a potential marker/target for cancer therapy.*

Ponomarev, Artem L.; Cornforth, Michael N.; Loucas, Bradford D.; Cucinotta, Francis A.
(PS6.27) *A Monte-Carlo model for the formation of radiation-induced chromosomal aberrations.*

Cao, Yongbing; Zhang, Bingrong; Zhang, Mei; Yang, Shanmin; Tian, Yeping; Zhang, Lei; Zhang, LuLu; Zhang, Aiguo; Vidyasagar, Sadasivan; Okunieff, Paul; Zhang, Lurong
(PS6.28) *Alterations of plasma DNA concentration after partial body radiation.*

Coss, Ronald A.; Mikhalkova, Deana; Leeper, Dennis B.; Storck, Christopher W.; Wachsberger, Phyllis R.; Singh, S. K.; Iliakis, George
(PS6.29) *The HSP90 inhibitor 17AAG radiosensitizes human tumor cells at acidic pH by abrogating repair of DSBs by homologous recombination.*

Zhu, Yun; Yu, Xiaoyan; Wang, Hongyan; Wang, Ping; Wang, Ya
(PS6.30) *Ku dependent NHEJ pathway contributes to low dose radiation induced adaptive responses.*

Mitchell, James B.; Anver, Miriam; Sowers, Anastasia L.; Albert, Paul S.; Figueroa, Maria; Thetford, Angela; Krishna, Murali C.; Cook, John A.
(PS6.31) *Protection against radiation-induced carcinogenesis.*

Epperly, Michael W.; Dixon, Tracy; Komanduri, Paavani; Greenberger, Benjamin; Wang, Hong; Greenberger, Joel
(PS6.32) *Maternal administration of manganese superoxide dismutase plasmid/liposome administration protects fetal mice from total body irradiation.*

Morris, Melissa N.; Zhou, Daohong; Wang, Yong

(PS6.33) *Identification and characterization of ionizing radiation responsive microRNAs.*

Downing, Laura; Sawarynski, Kara; Powell, Kimberly; Williams, Jacqueline P.; Finkelstein, Jacob N.; Sims, Matthew; Marples, Brian
(PS6.34) *Evaluating pulmonary injury after combined exposures to low-dose low-LET radiation and fungal spores.*

Swartz, Harold; Demidenko, Eugene; Dong, Ruhong; Grinberg, Oleg Y.; Gui, Jiang; He, Xiaoming; Lesniewski, Piotr; Nicolalde, Javier; Ruuge, Andres; Wilcox, Dean; Williams, Ben
(PS6.35) *Use of EPR for dosimetry for management of potential radiation exposures to a large population.*

Sieber, Fritz; Muir, Sarah A.; Cohen, Eric P.; Fish, Brian L.; Mäder, Marilou; Schock, Ashley M.; Althouse, Bryan J.; Moulder, John E.
(PS6.36) *Dietary selenium (Se) for the mitigation of radiation injury: effects of Se dose escalations.*

Redon, Christophe E.; Nakamura, Asako J.; Rahman, Arifur; Blakely, William F.; Bonner, William M.
(PS6.37) *Gamma-H2AX as a biodosimeter for ionizing radiation exposure: an in vivo study with non-human primates.*

Baker, John E.; Fish, Brian; Moulder, John E.
(PS6.38) *Total body irradiation-induced increase in risk factors for cardiovascular disease are mitigated by post irradation treatment with Losartan and Curcumin.*

Laiakis, Evagelia C.; Li, Henghong; Patterson, Andrew D.; Cheema, Amrita; Gonzalez, Frank J.; Fornace Jr., Albert J.
(PS6.39) *Metabolomic profiling of urines from p53-/- and wild type mice following exposure to gamma radiation.*

Batinic-Haberle, Ines; Gauter-Fleckenstein, Ben; Kos, Ivan; Fleckenstein, Katharina; Spasojevic, Ivan; Vujaskovic, Zeljko
(PS6.40) *MnTnHex-2-PyP5+. Structural characteristics, lipophilicity and bioavailability contribute to its high potency in pulmonary radioprotection.*

Turner, Helen C.; Garty, Guy; Lyulko, Oleksandra V.; Brengues, Muriel; Bertucci, Antonella; Schafer, Julia; Randers-Pehrson, Gerhard; Zenhausern, Frederic; Brenner, David J.
(PS6.41) *Adaptation of γ-H2AX and micronucleus assays for automated processing.*

Zhang, Xichen; Rajagopalan, Malolan; Buchholz, Bettina; Bauer, Anthony; Franicola, Darcy; Dixon, Tracy; Cao, Shaonan; Greenberger, Joel
(PS6.42) *Thoracic irradiation of Nitric Oxide Synthase 1 Homologous Recombinant Negative (NOS1 -/-) mice induces esophageal dilation and early death while their mesenchymal stem cells are paradoxically radioresistant.*

Theriot, Corey A.; Casey, Rachael C.; Moore, Valerie C.; Conyers, Jodie L.; Wu, Honglu
(PS6.43) *The dendro[60]fullerene DF-1 provides potent radioprotection to mammalian cells.*

Ghosh, Swarajit N.; Gao, Feng; Kma, Lakhan; Gao, Ying; Molthen, Robert C.; Fish, Brian L.; Moulder, John E.; Jacobs, Elizabeth R.
(PS6.44) *Radiation Lung Injury and Mitigation by Angiotensin Converting Enzyme Inhibitors.*

Orschell, Christie M.; Plett, Artur; Yamin, Michael; Brines, Michael; Katz, Barry; Juliar, Beth; Farese, Ann; MacVittie, Thomas; Booth, Cath
(PS6.45) *ARA290 is an efficacious radiomitigator of both the hematopoietic and gastrointestinal syndromes of the acute radiation syndrome.*

Zhang, Kunzhong; Tian, Yeping; Yin, Liangjie; Zhang, Mei; Zhang, Bingrong; Yang, Shanmin; Anna De Benedetto; Beck, Lisa A.; Okunieff, Paul; Zhang, Lurong; Vidyasagar, Sadasivan
(PS6.46) *Fgf-p stimulates keratinocytes proliferation following irradiation.*

Kim, Sung-Ho; Kim, Joong-Sun; Lee, Hae-June; Moon, Changjong; Jung, Uhee; Park, Hae-Ran; Jo, Sung-Kee
(PS6.47) *Protective effects of a herbal composition (Hemo-HIM) on the hippocampus-dependent learning and memory in γ-irradiated mice.*

Shea-Donohue, Terez; Fasano, Alessio; Zhao, Aiping; Notari, Luigi; Stiltz, Jennifer; DeVito, Justin; McFarland, Emylee; Farese, Ann; Macvittie, Thomas
(PS6.48) *An acute radiation syndrome (ARS) nonhuman primate (NHP) research platform: prolonged gastrointesinal (GI) dysfunction observed in NHPs surviving the acute heme and GI syndromes.*

Paul, Sunirmal; Brengues, Muriel; Lenigk, Ralf; Zenhausern, Frederic; Amundson, Sally A.
(PS6.49) *Practical gene expression for biodosimetry: predicting exposure status invivo.*

Roche, Marjolaine; Neti, Prasad V. S.; Kemp, Francis W.; Brimacombe, Michael; Agrawal, Amit; Attanasio, Alicia; Douard, Veronique; Azzam, Edouard I.; Howell, Roger W.; Ferraris, Ronaldo P.
(PS6.50) *Dietary cocktail of vitamins protects intestinal nutrient transport against damage caused by chronic irradiation.*

Chua, Hui Lin; Plett, Artur P.; MacVittie, Thomas J.; Orschell, Christie
(PS6.51) *Relationship between dose of total body irradiation (TBI) and temporal changes in plasma cytokines and hematopoietic cells.*

Garty, Guy Y.; Lyulko, Oleksandra V.; Turner, Helen C.; Randers-Pehrson, Gerhard; Brenner, David J.
(PS6.52) *A rapid in-situ cellular imaging system for high-throughput biodosimetry.*

Burns, Fredric J.; Wu, Feng; Tang, Eric; NYU School of Medicine; NY, Tuxedo;
(PS6.53) *A Biodosimetric Approach to Establishing Skin Carcinoma Yield Based on Quantification of DNA Double Strand Breaks in Keratinocytes.*

Jenrow, Kenneth A.; Liu, Jianguo; Lapanowski, Karen; Kolozsvary, Andrew; Brown, Stephen L.; Jae Ho Kim
(PS6.54) *Persistent mitigation of impaired granule cell neurogenesis following whole brain radiation after ramipril and atorvastatin withdrawal.*

Rivina, Yelena O.; Schiestl, Robert H.
(PS6.55) *From yeast to mice: a novel method for establishing radiation-induced cell and DNA damage mitigation activity of small molecules.*

Tyburski, John B.; Patterson, Andrew D.; Krausz, Kristopher W.; Fornace Jr., Albert J.; Gonzalez, Frank J.; Idle, Jeffrey R.
(PS6.56) *Radiation metabolomics reveals dose- and time-dependent urinary excretion of deaminated purines and pyrimidines after sublethal gamma-radiation exposure in mice.*

Hill, Colin K.; Mordwinkin, Nick; Sharma, Natasha; Deserga, Gere; Rodgers, Kathleen
(PS6.57) *Changes in Gene Expression in the Skin after Thermal Injury or Total Body Irradiation with gamma-rays.*

PS7. EXPERIMENTAL THERAPEUTICS-II/ MUTAGENESIS, CLASTOGENESIS, CARCINOGENESIS

Tuesday, October 06, 2009, 5:30 pm - 6:30 pm, Atrium

Wachsberger, Phyllis R.; Showalter, Timothy N.; Daroczi, Borbala; Dicker, Adam P.
(PS7.01) *Effect of vandetanib and cediranib combined with temozolamide and radiotherapy in EGFR-expressing GBM tumors.*

Freschauf, Gary K.; Karimi-Busheri, Feridoun; Mereniuk, Todd; Pasarj, Phuwadet; Holmes, Charles; Rininsland, Frauke; Hall, Dennis; Weinfeld, Michael
(PS7.02) *Radiosensitization by small molecule inhibitor of human polynucleotide kinase.*

Murray, David; Mirzayans, Razmik
(PS7.03) *The nuclear export inhibitor leptomycin B triggers apoptosis in human breast cancer cell lines with differing p53 status: influence on radiosensitivity.*

Otterson, Mary F.; Leming, Shawn; Callison, Jennifer; Moulder, John E.
(PS7.04) *NMDA receptor antagonists block but do not mitigate prodromal radiation sickness.*

Schroeder, Thies; Bhutiani, Neal; Dewhirst, Mark W.
(PS7.05) *The inhibition of glucose uptake by extracellular lactate provides a mechanistic explanation for the lactate-consuming metabolic symbiont in R3230 rat mammary adenocarcinoma cells.*

Seemann, Ingar; Hoving, Saske; Visser, Nils; Hans te Poele; Fijs van Leeuwen; Janssen, Ben; Heeneman, Sylvia; Stewart, Fiona
(PS7.06) *Alteration of cardiac structure and function induced by irradiation and anthracyclines.*

Phillips, John G.; Passarella, Ralph J.; Spratt, Daniel E.; Zhou, Li; Wu, Hongmei M.; Hallahan, Dennis E.; Diaz, Roberto
(PS7.07) *Calsequestrin-1 is induced by ionizing radiation in tumors.*

Sharma, Sunil; Ming, Chaw; Moros, Eduardo; Corry, Peter M.
(PS7.08) *Cone beam ct (CBCT) reconstruction of small animals using SACRTD.*

Orcutt, Kevin P.; Wilke, Werner W.; Scarbrough, Peter M.; Kalen, Amanda L.; Spitz, Douglas R.; Simons, Andrean L.
(PS7.09) *The role of oxidative stress in the cytotoxic effects of erlotinib in human head and neck cancer cells.*

Desmarais, Guillaume; Bujold, Rachel; Fortin, David; Mathieu, David; Paquette, Benoit
(PS7.10) *Role of radiation to stimulate the proliferation and invasiveness of F98 glioma cells implanted in rat brain.*

Konsoula, Zacharoula; Velena, Alfredo; Jung, Mira; University, Georgetown; DC, Washington;
(PS7.11) *In vitro and in vivo radiosensitization of prostate cancer cells by a novel hydroxamic acid-based histone deacetylase inhibitor, H6CAHA.*

Dilmanian, Avraham; Zhong, Zhong; Lanier, Nicolle; Cheruku, Shravan; Shahrabi, Neda; Nwabuobi, Lynda; Kalef-Ezra, John; Connor, Dean M.; Farhangian, Michael; Joseph Gatz III; Meek, Allen G.
(PS7.12) *Interlacing arrays of parallel x-ray microplanar beams: effects on the intracranial rat 9LGS.*

Dewan, Zahidunnabi; Matsumura, Satoko; Formenti, Silvia C.; Demaria, Sandra
(PS7.13) *Radiation therapy ability to elicit anti-tumor immunity in combination with CTLA-4 blockade is associated with induction of MIP-1α expression in tumors.*

Geng, Ling; Rachakonda, Girish; D. James Morre; Morre, Dorothy M.; Crooks, Peter A.; Sonor, Vijayakumar N.; Joseph L. Roti Roti; Rogers, Buck E.; Ye, Fei; Freeman, Michael L.; Sekhar, Konjeti R.
(PS7.14) *Indolyl-quinuclidinols inhibit ENOX activity and endothelial cell morphogenesis while enhancing radiation-mediated control of tumor vasculature.*

Makinde, Adeola Y.; Crapo, James D.; Gridley, Daila S.
(PS7.15) *Evaluation of prostate cancer cell viability and apoptotic death after treatment with radiation and MnTE-2-PyP, an SOD mimetic.*

Wang, Wei-Dong; Mao, Li-wei; Chen, Zheng-tang
(PS7.16) *Construction of a Radiation-induced Artificial Positive Feedback Circuit using p53/p21 pathway elements in Human Lung cancer cells.*

Pilones, Karsten A.; Kawashima, Noriko; Formenti, Silvia C.; Demaria, Sandra
(PS7.17) *Combination of local radiation with cd137 costimulation for breast cancer treatment.*

Mendonca, Marc S.; Estabrook, Neil C.; Chin-Sinex, Helen; Borgmann, Anthony; Smolen, Nicholas; Watson, Christopher; Dhaemers, Ryan; Crooks, Peter; Sweeney, Christopher
(PS7.18) *DMAPT induced X-ray sensitization of lung cancer cells involves inhibition of NF-κB dependent split dose and DNA double strand break repair.*

Haimovitz-Friedman, Adriana; Truman, Jean-Philip; Rotenberg, Susan A.; Kang, Ji-Hye; Lerman, Gabriel; Fuks, Zvi; Kolesnick, Richard; Marquez, Victor E.
(PS7.19) *PKCα activation downregulates ATM and radiosensitizes androgen-sensitive human prostate cancer cells in vitro and in vivo.*

Baker, Jennifer H. E.; Kyle, Alastair H.; Flannagan, Erin; Methot, Stephen; Balbirnie, Andrew; Minchinton, Andrew I.
(PS7.20) *Investigating the vascular targeting effects of the bioreductive cytotoxin Tirapazamine.*

Capitano, Maegan L.; Hylander, Bonnie L.; Repasky, Elizabeth A.
(PS7.21) *The temperature at which mice are housed alters sensitivity to total body irradiation.*

Dziegielewski, Jaroslaw; Pemberton, Bradley L.; Dunlap-Brown, Marya E.; Larner, James M.; Parsons, Sarah J.; Amorino, George P.
(PS7.22) *SR48692, a specific neurotensin receptor (NTR1) antagonist, sensitizes prostate cancer cells to ionizing radiation, in both in-vitro and in-vivo models.*

Veeraraghavan, Jamunarani; Madhusoodhanan, Rakhesh; Natarajan, Mohan; Herman, Terence S.; Aravindan, Natarajan
(PS7.23) *Relative efficiency of curcumin, neem leaf extract and black raspberry extract in attenuating fractionated radiation induced NFkB DNA binding activity and transcriptional responses in human pancreatic adenocarcinoma cells.*

Burdelya, Lyudmila; Gleiberman, Anatoly; Toshkov, Iliya; Aygun-Sunar, Semra; Manderscheid-Kern, Patricia; Bellnier, David; Krivokrysenko, Vadim; Feinstein, Elena; Gudkov, Andrei
(PS7.24) *TLR5 agonist CBLB502 protects dermal and mucosal epithelia from radiation damage during radiotherapy in mouse model of head and neck cancer.*

Li, Shuyi; Xiong, Hairong; Lee, Robert J.; Gao, Jingchun; Kuhne, Wendy; Edwards, John G.; Dynan, William S.
(PS7.25) *Receptor-mediated delivery of an anti-DNA-PKcs single-chain antibody to the nuclei of human cancer cells and demonstration of radiation sensitivity enhancement in vitro.*

Yoo, Stephen S.; Cerna, David
(PS7.26) *Identification of GMX1777/1778 as the ROS inducing agent.*

Leeper, Dennis B.; Patel, Vanita; Pollard, Marea; O'Hara, Michael D.
(PS7.27) *Lack of effect of acidifying agents on radiation, hyperthermia or chemotherapy response of murine bone marrow.*

Du, LiQing; Wang, Yong; Wang, Hong; Cao, Jia; Liu, Qiang; Fan, FeiYue
(PS7.28) *Suppression RAD51 expression enhances sensitivity of chemicals and ionizing radiation to human osteosarcoma cells.*

Zumsteg, Zachary S.; Cacalano, Nicholas A.; Belanto, Joseph J.; Yeh, Brian K.; Pham, Victoria; Jamieson,

Christina A. M.; Iwamoto, Keisuke; McBride, William H.; Kim, Kwanghee
(PS7.29) *Thiostrepton, a novel proteasome inhibitor, down-regulates FoxM1 expression and is a radiosensitizing agent in glioblastoma multiforme.*

Griffin, Robert J.; Koonce, Nathan; Webber, Jessica; Apana, Scott; Berridge, Marc
(PS7.30) *PET imaging of anti-angiogenic peptide anginex.*

Urano, Muneyasu; He, Fuqiu; Minami, Akiko; Ling, Clifton C.; Li, Gloria
(PS7.31) *Hypoxia-Induced lethal damage (HILD) is enhanced by inhibiting the repair of DNA damage but reparable when reoxygenated.*

Bennewith, Kevin L.; Koehne, Amanda L.; Ham, Christine M.; Jia, Jessica X.; Graves, Edward E.; Yang, George P.; Giaccia, Amato J.
(PS7.32) *Use of the hypoxia-activated DNA cross-linking agent PR-104 to target hypoxic tumour cells in human pancreatic tumour xenografts.*

Palmer, Gregory M.; Boruta, Richard J.; Viglianti, Benjamin L.; Dewhirst, Mark W.
(PS7.33) *Non-invasive monitoring of physiologic changes induced by hyperthermia using optical spectroscopy.*

Hirani, Zishan; Ivkov, Robert; Zhang, Yonggang; Armour, Michael; Hedayati, Mohammad; Ford, Eric; DeWeese, Theodore; Herman, Joseph
(PS7.34) *Evaluation of hypofractionated radiation therapy (HRT) and magnetic nanoparticle heating for pancreatic cancer.*

Jo, Sung-Kee; Park, Hae-Ran; Ju, Eun-Jin; Jung, Uhee
(PS7.35) *An herbal composition (HemoHIM) as an auxiliary agent for the radiation treatment in tumor-bearing mice.*

Gupta, Seema; Chen, Ching-Shih; Ahmed, Mansoor M.
(PS7.36) *Upstream stimulatory factor-1 as a putative target to enhance the radiosensitizing effects of histone deacetylase inhibitors in prostate cancer.*

Schroeder, Thies; Palmer, Gregory; Bonaventura, Joseph
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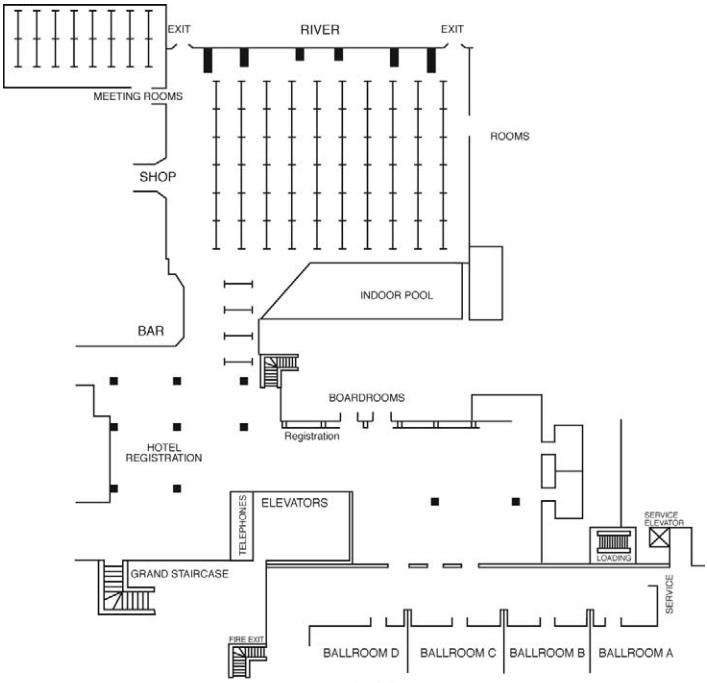
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