Monday, July 9, 2012
8:30 a.m.  Schreiber R. D. *
Deconstructing Cancer Immunoediting [8126]
Cancer immunoediting is the process by which the immune system controls and shapes cancer.

9:10 a.m.  Barcellos-Hoff M. H. * Balmain A. Costes S. V. Demaria S. Mao J. H.
NSCOR: The Contribution of Non-Targeted Effects in HZE Cancer Risk [8021]
Our studies are focused: evaluating the contribution of NTE in mammary carcinogenesis, systems
genetics of radiation carcinogenesis, and modeling radiation effects, all of which are supported by a
bioinformatics team.

9:40 a.m.  Held K. D. * Lumpkins S. Yang H. Magpayo N. Schuemann J.
LET Dependence of Response of Irradiated and Bystander Cells to Very Low Fluences of Charged
Particles in 2D and 3D [8018]
This work extends our finding of a significant increase in DNA damage in irradiated and bystander cells
at very low particle fluences to consider the importance of LET, track structure, and tissue architecture
(2D vs. 3D) in bystander effects.

10:00 a.m.  BREAK

Exposure to Heavy Ion Radiation Induced Persistent Oxidative Stress in Mouse Intestine [8009]
Long-term functional dysregulation of mitochondria and increased NADPH oxidase activity are major
contributing factors towards heavy ion radiation-induced persistent oxidative stress in mouse intestine
with potential for neoplastic transformation.

10:40 a.m.  Aroumougame A. * Chen D. J.
Mechanism of HZE Particles Induced Chromosome Instability [8060]
In this work, we found that the difficulties associated with clustered DNA lesions repair and checkpoint
release before the completion of DNA repair contribute to the formation of chromosome aberration
following exposure to HZE particles.

11:00 a.m.  Li C-Y. * Li F. Liu X. Brogan J. Bedford J. S. Peng Y.
A Novel, Facilitative Role for Caspases in Space Radiation Induced Mutagenesis
and Carcinogenesis [8068]
Caspases are generally considered as tumor suppressors. In this study, we observe that in contrary to
conventional wisdom, they play a facilitative role in space radiation induced carcinogenesis.

11:20 a.m.  Stewart F. A. *
Risks and Mechanisms of Radiation-Induced Cardiovascular and Cerebrovascular Disease [8130]
Epidemiological studies have shown a clear association between high therapeutic doses of thoracic
irradiation and increased risks of cardiovascular disease in long-term cancer survivors, although these
effects may take decades to manifest.

12:00 p.m.  LUNCH