

# Frontiers of Mammalian Genomic Stability in Human Health

February 18 - 19, 2017

#### **Chairs**

Abigail Lubin and Molly Hardebeck

### Four Points Sheraton / Holiday Inn Express

1050 Schooner Drive Ventura, CA, US

### **Conference Description**

The Gordon Research Seminar on Mammalian DNA Repair is a unique forum for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas.

The focus of this meeting is to foster the scientific development of young investigators through presentations on the most current research in the field, a panel demonstrating a variety of career paths, and a highly-engaging environment that encourages scientific discussion and networking. The topics presented will cover mammalian DNA repair from basic mechanisms to clinical implications with an emphasis on the intersections of mechanistic and therapy-focused studies.

## **Related Meeting**



This GRS will be held in conjunction with the "Mammalian DNA Repair" Gordon Research Conference (GRC). Those interested in attending both meetings must submit an application for the GRC in addition to an application for the GRS. Refer to the <u>associated GRC program page</u> for more information.

## **Conference Program**



2:00 pm - 5:00 pm	Arrival and Check-in	
3:30 pm - 3:45 pm	Introductory Comments by GRC Site Staff / Welcome from the GRS Chair	
3:45 pm - 4:30 pm	<b>Keynote Session: DNA Signaling</b> Discussion Leader: <b>Abigail Lubin</b> (Icahn School of Medicine at Mount Sinai, USA)	
3:45 pm - 4:15 pm	<b>Jacqueline Barton</b> (California Institute of Technology, USA) "DNA Signaling"	
4:15 pm - 4:30 pm	Discussion	
4:30 pm - 6:00 pm	Poster Session	
6:00 pm - 7:00 pm	Dinner	
7:30 pm - 9:30 pm	Mechanisms of DNA Repair Pathways Discussion Leaders: Upasana Roy (Stony Brook University, USA) and Nodar Makharashvili (University of Texas at Austin, USA)	
7:30 pm - 7:50 pm	Pamela Sara Head (Emory University, USA) "SIRT2 Directs DNA-PKcs in the DNA Damage Response"	
7:50 pm - 8:00 pm	Discussion	
8:00 pm - 8:20 pm	$\label{eq:michael Howard} \begin{tabular}{l} Michael Howard (National Institute of Environmental Health Sciences, NIH, USA) \\ "Polymerase $\beta$ Uses Its Lyase Domain in a Processive Search for DNA Damage" \\ \end{tabular}$	
8:20 pm - 8:30 pm	Discussion	
8:30 pm - 8:50 pm	Michael Murata (University of California, Irvine, USA) "Fluorescence Lifetime Mapping of NADH Reveals the Effect of PARP Signaling on Energy Metabolism in Response to DNA Damage"	
8:50 pm - 9:00 pm	Discussion	



9:00 pm - 9:20 pm	<b>Preston Williams</b> (University of California, Riverside, USA) "Identification and Characterizations of Novel 8,5'-Cyclo-2'- Deoxypurine-Binding Proteins by Mass Spectrometry"	
9:20 pm - 9:30 pm	Discussion	
Sunday		
7:30 am - 8:30 am	Breakfast	
9:00 am - 11:00 am	Translational Implications of Impaired DNA Repair Pathways Discussion Leaders: Nicole Williams (University of California, Riverside, USA) and Amy Whitaker (University of Kansas Medical Center, USA)	
9:00 am - 9:20 am	<b>Nicolas Hoch</b> (University of Sussex, United Kingdom) "XRCC1 Mutation Is Associated with PARP1 Hyperactivation and Cerebellar Ataxia"	
9:20 am - 9:30 am	Discussion	
9:30 am - 9:50 am	Marta Popovic (University of Oxford, United Kingdom) "DNA-Protein Crosslink Repair in Humans: SPRTN Is a Novel Mammalian Protease with the Central Role in DPC Repair Pathway"	
9:50 am - 10:00 am	Discussion	
10:00 am - 10:20 am	<b>John Reynolds</b> (University of Birmingham, United Kingdom) "Identification and Characterisation of Mutations Associated with Microcephalic Dwarfism"	
10:20 am - 10:30 am	Discussion	
10:30 am - 10:50 am	Manasi Ratnaparkhe (German Cancer Research Centre (DKFZ), Germany) "Genomic Profiling of AT-TALL Patients Reveals Tight Link Between ATM Mutations and Chromothripsis"	
10:50 am - 11:00 am	Discussion	



11:00 am - 12:30 pm	<b>Poster Session</b> Coffee will be served in the poster area from 11:00 am - 11:30 am
12:30 pm - 1:30 pm	Lunch
1:30 pm - 2:30 pm	Mentorship Component: Career Panel Discussion Leader: Molly Hardebeck (Eli Lilly and Company, USA)
1:30 pm - 2:30 pm	<ul> <li>Panel Discussion</li> <li>Scientific Career Options</li> <li>Priscilla Cooper (Lawrence Berkeley National Laboratory, USA)</li> <li>Jessica Downs (Institute of Cancer Research, United Kingdom)</li> <li>Patricia Opresko (University of Pittsburgh, USA)</li> <li>Samuel Wilson (National Institute of Environmental Health Sciences, NIH, USA)</li> <li>Beth Moorefield (Nature Structural &amp; Molecular Biology, USA)</li> </ul>
2:30 pm - 3:00 pm	<b>Evaluation Period</b> Fill in GRS Evaluation Forms
3:00 pm	Seminar Concludes

## Contributors

NIE) NATIONAL CANCER INSTITUTE	National Institute on Aging	NIH National Institute of Environmental Health Sciences
University of Pittsburgh		

