SATURDAY, MAY 30

3:00 pm - 5:00 pm	Registration
5:00 pm - 6:30 pm	**Welcome Reception**

SUNDAY, MAY 31

7:30 am - 8:30 am	Breakfast
8:30 am - 8:40 am	Welcome *Graham C. Walker, Massachusetts Institute of Technology*
8:40 am - 12:20 pm	**Session I: It All Starts with DNA Repair** Chair: Priscilla K. Cooper
8:40 am - 8:45 am	Introduction of Keynote Address *Priscilla K. Cooper, Lawrence Berkeley National Laboratory*
8:45 am - 9:30 am	Keynote Address - Meandering through the Maze of Oxidative DNA Damage *Susan S. Wallace, University of Vermont*
9:30 am - 9:55 am	Mechanisms of Genomic Instability During Base Excision Repair *Samuel H. Wilson, National Institute of Environmental Health Sciences, NIH*
9:55 am - 10:20 am	Subpathways for Oxidative Damage Repair in the Mitochondrial Genome *Sankar Mitra, University of Texas Medical Branch*
10:20 am - 10:50 am	Coffee Break
	The following talks were selected from the abstracts:
10:50 am - 11:05 am	Structural Illumination of a MutY Glycosylase Reaction Coordinate Intermediate *Sheila S. David, University of California*
11:05 am - 11:20 am	Structure and DNA Binding of Alkylation Response Protein AidB *Brandt F. Eichman, Vanderbilt University*
11:20 am - 11:35 am	Thymine DNA Glycosylase is Required for Embryonic Development and DNA Demethylation in Mammals *Alfonso Bellacosa, Fox Chase Cancer Center*
11:35 am - 11:50 am	Arabidopsis ROS1 is a Non-Processive 5-methylcytosine DNA Glycosylase that Initiates Demethylation through an AP Endonuclease-Independent Excision Pathway *Teresa Roldan-Arjona, University of Cordoba*
11:50 am - 12:05 pm	The Role of MutS and MutL in Very Short Patch Repair in *Escherichia coli* *Claire G. Cupples, University of Victoria*
12:05 pm - 12:20 pm	Functional Redundancy and Uniqueness Among the Human RecQ Helicase *Raymond Monnat, University of Washington*

12:30 pm - 4:00 pm	Free Time
4:00 pm - 6:30 pm	**Session II: Locating Lesions and Coordinating Repair** Chair: Leon H. Mullenders
4:00 pm - 4:25 pm	Intersecting DNA Repair Pathways and Coordination with Transcription and Replication *Priscilla K. Cooper, Lawrence Berkeley National Laboratory*
4:25 pm - 4:50 pm	DNA Damage, Transcription Stalling and Cellular Responses *Leon H. Mullenders, Leiden University Medical Center*
4:50 pm - 5:15 pm	UV-Induced DNA Damage Response in Mammalian Cells *Wim Vermeulen, Erasmus Medical Center*
	The following talks were selected from the abstracts:
5:15 pm - 5: 30 pm	Dynamic Damage Searching by Nucleotide Excision Repair Proteins Investigated by Single-Molecule Fluorescence of Quantum Dot Labeled Proteins *Ben Van Houten, University of Pittsburgh*
5:30 pm - 5:45 pm	Molecular Basis of Multistep Damage Recognition in Mammalian Nucleotide Excision Repair *Kaoru Sugasawa, Kobe University*
5:45 pm - 6:00 pm	Structural and Functional Studies on the FeS Cluster Containing Nucleotide Excision Repair Helicase XPD *Caroline Kisker, University of Wuerzburg*
6:00 pm - 6:15 pm	Replisome Bypass of a Head-on RNA Polymerase is Facilitated by the Transcription-Coupled Repair Helicase Mfd *Richard T. Pomerantz, Rockefeller University*
6:15 pm - 6:30 pm	Transcription-Coupled Gene Amplification in *E. coli*: Is Adaptive Amplification Targeted to Specific Areas of the Genome in Response to Stress? *Hallie Wimberly, Baylor College of Medicine*
6:30 pm - 8:30 pm	**Poster Session A/Networking Dinner**

MONDAY, JUNE 1

7:30 am - 8:30 am	Breakfast
8:30 am - 12:30 pm	**Session III: Cellular Responses to DNA Damage** Chair: Daniel Durocher
8:30 am - 8:35 am	Introduction of Keynote Address *Peggy Hsieh, National Institute of Diabetes and Digestive and Kidney Diseases, NIH*
8:35 am - 9:20 am	Cellular Responses to DNA Double-Strand Breaks *Stephen P. Jackson, The Wellcome Trust and Cancer Research UK, The Gurdon Institute, University of Cambridge*
9:20 am - 9:45 am	A Systems Biology Approach Identifies p53 as a Binary Switch that Re-wires DNA Damage Signaling-Response Pathways *Michael B. Yaffe, David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology*

9:45 am - 10:10 am	ATM Signalling Relieves the Constraints to Double Strand Break Repair Caused by Higher order Chromatin Structure *Penelope A. Jeggo, University of Sussex*
10:10 am - 10:40 am	Coffee Break
10:40 am - 11:05 am	Regulatory Ubiquitylation at sites of DNA Double-Strand Breaks: From RNAi Screening to Human Disease *Daniel Durocher, Samuel Lunenfeld Research Institute, Mount Sinai Hospital*
11:05 am - 11:30 am	DNA Damage Signaling: Mechanisms and Role in Human Tumorigenesis and Treatment Response *Jiri Bartek, Danish Cancer Society*
	The following talks were selected from the abstracts:
11:30 am - 11:45 am	The ATM Protein Displays Distinct Spatial Dynamics at the Sites of DNA damage *Paul S. Bradshaw, The Hospital for Sick Children*
11:45 am - 12:00 pm	MicroRNA-Mediated Gene Silencing, a Novel Level of DNA Damage Response Regulation *Joris Pothof, Erasmus University Medical Center*
12:00 pm - 12:15 pm	A New Member of Genes, *Mapo1*, Involve in O^6-Methylguanine Induced Apoptosis *Masumi Hidaka, Fukuoka Dental College*
12:15 pm - 12:30 pm	Cooperation between ATR/ATM and PolZeta/PolEta Pathways in Replication-Stressed Tissue Stem-Cell Niches *John B. Hays, Oregon State University*
12:30 pm - 4:00 pm	Free Time
4:00 pm - 6:30 pm	**Session IV: Mutation and Mutagenesis** Chair: Roger Woodgate
4:00 pm - 4:25 pm	Investigating the Mechansims of Spontaneous and Damage Induced Mutagenesis in *Escherichia coli* *Roger Woodgate, Laboratory of Genomic Integrity, National Instituteof Child Health and Human Development, NIH*
4:25 pm - 4:50 pm	Transcriptional Mutagenesis by 8-oxoguanine causes Ras Activation in Mammalian Cells *Paul W. Doetsch, Emory University School of Medicine*
4:50 pm - 5:15 pm	Balancing AID and DNA Repair During Somatic Hypermutation of Immunoglobulin Genes *David G. Schatz, Yale University School of Medicine*
	The following talks were selected from the abstracts:
5:15 pm - 5:30 pm	Biochemistry of DNA-cytosine Deaminases Required for Antibody Maturation and Retrovirus Restriction *Ashok Bhagwat, Wayne State University*
5:30 pm - 5:45 pm	Damage-Induced Localized Hypermutability *Dmitry A. Gordenin, Natinal Institute of Environmental Health Sciences, NIH*

5:45 pm - 6:00 pm	Error-Prone DNA Polymerase IV (DinB) and the Universal Stress-Responses of *Escherichia coli* *Patricia L. Foster, Indiana University*
6:00 pm - 6:15 pm	Nuclear Reorganization of DNA Mismatch Repair Proteins in Response to DNA Damage *Chris Heinen, University of Connecticut Health Center*
6:15 pm - 6:30 pm	Structure of the Endonuclease Domain of MutL: Unlicensed to Cut *Alba Guarne, McMaster University*
6:30 pm - 8:30 pm	**Poster Session B/Networking Dinner**

TUESDAY, JUNE 2

7:30 am - 8:30 am	Breakfast
8:30 am - 12:30 pm	**Session V: Unusual DNA Structures, Chromatin and DNA Repair** Chair: Titia de Lange
8:30 am - 8:55 am	Unusual DNA Structures and Genetic Instability *Karen Vasquez, University of Texas M.D. Anderson Cancer Center*
8:55 am - 9:20 am	Mammalian Telomeres Resemble Fragile Sites and Require TRF1 for Efficient Replication *Titia de Lange, Rockefeller University*
9:20 am - 9:45	The Role of the RSC Chromatin Remodeling Complex in DNA Double Strand Break Repair *Jessica A. Downs, University of Sussex*
	The following talks were selected from the abstracts:
9:45 am - 10:00 am	Mechanistic Links between Tip60, ATM and Histone Methylation Codes During DNA Repair *Brendan D. Price, Dana-Farber Cancer Institute*
10:00 am - 10: 15 am	A Histone Code for NHEJ Repair Mediates Chemotherapy Resistance *Robert Hromas, University of New Mexico Cancer Center*
10:15 am - 10:45 am	Coffee Break
10:45 am - 11: 00 am	Genetic Dissection of The Mechanisms Underlying Telomere Associated Diseases: Impact of The TRF2 Telomeric Protein on Mouse Epidermal Stem Cells *Gerdine J. Stout, Spanish National Cancer Research Center*
11:00 am - 11:15 am	Transcriptional Processing of Non-Canonical DNA Structures *Philip C. Hanawalt, Stanford University*
11:15 am - 11:30 am	Incision-Dependent and Error-Free Repair of CAG/CTG Hairpins in Human Cells *Guo-Min Li, University of Kentucky*

11:30 am - 11:45 am	Nucleosome Remodeling Catalyzed by the Human hMSH2-hMSH6 Mismatch Recognition Complex *Sarah Javaid, The Ohio State University*
11:45 am - 12:00 pm	Interactions of MutY Homolog (MYH) with Checkpoint Sensor Hus1/Rad1/Rad9 and Histone Deacetylase Hst4 in Fission Yeast, *Schizosaccharomyces pombe* A-Lien Lu-Chang, University of Maryland
12:00 pm - 12:15 pm	Increased Reliance On DNA Repair In Malignant Gliomas With Hyperactive EGFR: A Proof of Principle In Targeting Non-Oncogene Addiction *Clark C. Chen, Dana Farber Cancer Institute*
12:15 pm - 12:30 pm	MRE11 Cleaves Topoisomerase 1-DNA Covalent Complexes to Promote Resistance to Camptothecin *Elizabeth J. Sacho, University of Washington*
12:30 pm - 4:00 pm	Free Time
4:00 pm - 6:20 pm	**Session VI: Aging, Cancer and Human Disease** Chair: Richard D. Wood
4:00 pm - 4:25 pm	DNA Damage, Cancer, Aging and the Survival Response that Promotes Longevity *Jan H.J. Hoeijmakers, Erasmus University Medical Centre*
4:25 pm - 4:50 pm	ERCC1-XPF Dependent DNA Repair: At the Cancer: Aging Interface *Laura J. Niedernhofer, University of Pittsburgh School of Medicine*
4:50 pm - 5:15 pm	Rad50 and XPD ATPase Machines and their Disease-Causing Mutations: Insights from Combined Genetic and Structural Analyses *John A. Tainer, Visiting Professor, Lawrence Berkeley National Lab and Skaggs Institute for Chemical Biology*
5:15 pm - 5:40 pm	Aberrant Base Excision Repair and Cancer *Joann B. Sweasy, Yale University School of Medicine*
5:40 pm - 6:05 pm	Acclerated Tumorigenesis in the Absence of DNA Polymerase Zeta *Richard D. Wood, The University of Texas MD Anderson Cancer Center*
	The following talks were selected from the abstracts:
6:05 pm - 6:20 pm	A DNA Polymerase-Delta Deletion Mutator Promotes Tumor Progression *Lawrence A. Loeb, University of Washington*
6:30 pm - 8:30 pm	**Poster Session C/Networking Dinner**

WEDNESDAY, JUNE 3

7:30 am - 8:30 am	Breakfast

8:30 am - 12:30 pm	**Session VII: Bypassing DNA Damage** Chair: Robert P. Fuchs
8:30 am - 8:35 am	Introduction of Keynote Address *Leona D. Samson, Massachusetts Institute of Technology*
8:35 am - 9:20 am	Keynote Address - Modifications and Roles of Y-family DNA polymerases eta and kappa *Alan R. Lehmann, University of Sussex*
9:20 am - 9:45 am	The Dynamics of Translesion Synthesis in Vertebrate Cells *Julian E. Sale, MRC Laboratory of Molecular Biology*
9:45 am - 10:10 am	Timing and Spacing of Ubiquitin-Dependent DNA Damage Bypass *Yasukazu Daigaku, Cancer Research UK, London Research Institute Clare Hall Laboratories*
10:10 am - 10:40 am	Coffee Break
10:40 am - 11:05 am	An Integrated View of Translesion Synthesis in *E. coli* *Robert P. Fuchs, CNRS Marseilles*
11:05 am - 11:30 am	Factors Required for Template-Switch Mediated Damage Bypass and their Regulation *Dana Branzei, F.I.R.C. Institute of Molecular Oncology*
	The following talks were selected from the abstracts:
11:30 am - 11:45 am	DNA Polymerase Zeta Operates in Two-Polymerase Mechanisms that Determine Accurate or Mutagenic Outcome of Translesion DNA Synthesis In Human Cells *Zvi Livneh, Weizmann Institute of Science*
11:45 am - 12:00 pm	The FancI-FancD2 Complex is Required for Translesion DNA Synthesis During Interstrand Cross-link Repair *Puck Knipscheer, Harvard Medical School*
12:00 pm - 12:15 pm	Mechanism of the Pol III/IV Switch: Variation of the Toolbelt Model Involving a Single Hydrophobic Cleft and the Rim of the Sliding Clamp *Justin M. Heltzel, University at Buffalo SUNY*
12:15 pm - 12:30 pm	Regulation of the DNA Damage Response by the *E. coli* DNA Polymerase Manager Protein UmuD *Penny J. Beuning, Northeastern University*
12:30 pm - 4:00 pm	Free Time
4:00 pm - 6:30 pm	**Session VIII: Implications for the Whole Organism** Chair: Bevin P. Engelward
4:00 pm - 4:25 pm	Complex Responses to DNA Damaging Agents *Leona D. Samson, Massachusetts Institute of Technology*

4:25 pm - 4:50 pm	Genetic and Epigenetic Mechanisms of Exposure-Induced Recombination *Bevin P. Engelward, Massachusetts Institute of Technology*
4:50 pm - 5:15 pm	A Robust DNA Repair System in *D. radiodurans* *Miroslav Radman, Necker, University of Paris 5*
	The following talks were selected from the abstracts:
5:15 pm - 5:30 pm	Directed Evolution of Extreme Radioresistance in *E. coli* MG1655 *John R. Battista, Louisiana State University*
5:30 pm - 5:45 pm	Characterization of ITPase Knockout Mouse *Kunihiko Sakumi, Kyushu University*
5:45 pm	**Special Talk:** Sydney Brenner --- Founding Father of Molecular Biology --- and *Enfant Terrible* *Errol C. Friedberg, UT Southwestern Medical Center*
6:30 pm - 8:30 pm	**Poster Session D/Networking Dinner**

THURSDAY, JUNE 4

7:30 am - 8:30 am	Breakfast
8:30 am - 12:30 pm	**Session IX: Repairing DNA Breaks** Chair: Susan P. Lees-Miller
8:30 am - 8:55 am	Identification of Novel Components of Chromosomal DNA Strand Break Repair *Keith W. Caldecott, University of Sussex*
8:55 am - 9:20 pm	Structural Biology of DNA End Joining *Tom Ellenberger, Washington University School of Medicine*
9:20 am - 9:45 am	AdnAB: A New DSB-resecting Motor-Nuclease from Mycobacteria *Stewart Shuman, Sloan-Kettering Institute*
9:45 am - 10:10 am	Structure/Function Insights into the Role of DNA-PK in DNA Double Strand *Susan P. Lees-Miller, University of Calgary*
10:10 am - 10:40 am	Coffee Break
10:40 am - 11:05 am	Initiation of Double Strand Break Processing by Mre11/Rad50/Xrs2 *Tanya T. Paull, University of Texas at Austin*
11:05 am - 11:30 am	Spatio-Temporal Organization of DNA Single-Strand Break Repair by PARP, PARG and XRCC1 in Human Cells *Akira Yasui, Tohoku University*

11:30 am - 11:55 am	Holliday Junction Resolution Mediated by the Human GEN1 Protein *Stephen C. West, Cancer Research UK, London Research Institute Clare Hall Laboratories*
	The following talks were selected from the abstracts:
11:55 am - 12:10 pm	Phosphorylation Of FANCG At Serine 7 Acts As A Molecular Switch For Homologous Recombination Repair (HRR) In The Fanconi-BRCA Tumour Suppressor Pathway *Nigel J. Jones, University of Liverpool*
12:10 pm - 12:25 pm	Nuclear Proteins Involved in Mitochondrial Double-Strand Break Repair *Lidza Kalifa, University of Rochester*
12:30 pm - 4:00 pm	Free Time
4:00 pm - 6:25 pm	**Session X: Replication Fidelity** Chair: Thomas A. Kunkel
4:00 pm - 4:25 pm	Efficiency of Mismatch Repair of Replication Errors Made by Yeast DNA Polymerase δ *Thomas A. Kunkel, National Institute of Environmental Health Sciences, NIH*
4:25 pm - 4:50 pm	DNA Damage Recognition *Wei Yang, National Institute of Diabetes and Digestive and Kidney Diseases, NIH*
4:50 pm - 5:15 pm	Control and Function of Translesion DNA Polymerases *Graham C. Walker, Massachusetts Institute of Technology*
5:15 pm - 5:40 pm	Studies on the Mechanism of Eukaryotic Mismatch Repair and Possible Insights into the Nature of the Exo1-Independent Reaction *Paul Modrich, Duke University Medical Center*
	The following talks were selected from the abstracts:
5: 40 pm - 5:55 pm	MutS Recognition of DNA *Titia K. Sixma, Netherlands Cancer Institute*
5: 55 pm - 6:10 pm	Mechanism of Mismatch Repair *Marina Elez, INSERM*
6:10 pm - 6:25 pm	DNA Loop Formation By The Muts Mutl Protein Complex During Early Steps of DNA Mismatch Repair *Joyce H. Lebbink, Erasmus Medical Center*
8:00 pm - 12:00 pm	**Closing Party**